

**EPA REGISTRATION NUMBER 524-445 – Vol. 1**

APR - 2 1992

Dr. Sheila A. Schuette  
Monsanto Company  
700 14th Street, NW., Suite 1100  
Washington, DC 20005

Dear Dr. Schuette:

Subject: MON-35085 Herbicide (Supplemental Label for Small Grains  
in South Dakota)  
EPA Registration No. 524-445  
Your Letter Dated March 10, 1992

The amendment referred to above, submitted in connection with  
registration under section 3(c)(7)(A) of the Federal Insecticide,  
Fungicide, and Rodenticide Act (FIFRA), is acceptable provided that you:

1. Submit/cite all data required for registration/reregistration  
of your product under FIFRA section 3(c)(5) and section 4 when  
the Agency requires all registrants of similar products to submit  
such data.
2. Submit five (5) copies of your final printed labeling before you  
release the product for shipment.
3. This labeling with the brand name "Roundup Herbicide" will become  
effective July 1, 1992.

56075:I:CR-43:Taylor:WP25-4:KEVRIC:03/30/92:04/30/92:rj:dd:rj

2

CONCURRENCES

SYMBOL	H2505						
SURNAME	UFWallen						
DATE	4/1/92						

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Sincerely yours,

Robert J. Taylor  
Product Manager (25)  
Fungicide-Herbicide Branch  
Registration Division (H7505C)

Enclosure

SUBMISSION REVIEW RECORD			1. REGISTRATION NUMBER				CYCLE	2. DATE RECEIVED		
			524 -					NO	DAY	YR
			445					03	11	92
3. ICID PUBLICATION NECESSARY <input type="checkbox"/> YES <input type="checkbox"/> NO			4. PETITION NO.				5. RECEIVED PM TEAM MO DAY YR			
6. METHOD OF SUPPORT <input type="checkbox"/> 2A <input type="checkbox"/> 2B <input type="checkbox"/> 2C			7. PRODUCT MANAGER				8. PROJECTED RETURN MO DAY YR			
9. DATE PULLED 3/26/92		10. DATE PUBLISHED		11. ACTION TYPE Supp Label - Small Grain - SD 305			CODE		12. OUTGOING DATE MO DAY YR	
REV SEQ	REVIEW TYPE CODE	REVIEW TYPE	REVIEWER CODE (Initials)	SIGNATURE OF REVIEWER		COM- MENT CODE	DATE REVIEW COMPLETED MO DAY YR			
	A	REVIEWABILITY TEAM								
	B	PRODUCT MANAGER TEAM EFFICACY REVIEW								
	C	PRODUCT MANAGER TEAM HUMAN SAFETY REVIEW								
	D	PRODUCT MANAGER TEAM EN- VIRONMENTAL SAFETY REVIEW								
	E	PRODUCT MANAGER TEAM RESUBMISSION REVIEW								
	F	PRODUCT MANAGER		UKW		MAC	03	26	92	
	G	INTERAGENCY REFERRAL		prior approved 524-308						
	H	COST-BENEFIT REVIEW								
	I	PUBLIC COMMENTS REVIEW								
	J	EEE BRANCH INSECTICIDE EFFICACY								
	K	EEE BRANCH HERBICIDE EFFICACY								
	L	EEE BRANCH FUNGICIDE EFFICACY								
	M	EEE BRANCH RODENTICIDE EFFICACY								
	N	EEE BRANCH DISINFECTANT EFFICACY								
	O	CHEMISTRY BRANCH RESIDUE CHEMISTRY								
	P	EEE BRANCH ENVIRON- MENTAL CHEMISTRY								
	Q	TOXICOLOGY BRANCH HUMAN SAFETY								
	R	EEE BRANCH ENVIRON- MENTAL SAFETY								
	S									
	T									
PRODUCT MANAGER SIGNATURE				TYPE OF RESPONSE				CODE		



# Monsanto

Monsanto Company  
Suite 1100  
700 14th Street, N.W.  
Washington, D.C. 20005

March 10, 1992

Office of Pesticide Programs - H7504C  
Document Processing Desk  
U.S. Environmental Protection Agency  
Room 226A, Crystal Mall #2  
1921 Jefferson Davis Highway  
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor  
Product Manager (25)

Subject: **MON-35085 Herbicide (EPA Reg. No. 524-445)**  
**Submission of Supplemental Labels**

Dear Sir:

In a companion letter, also dated March 10, 1992, Monsanto requested that the brand name Roundup® be added to EPA Reg. No. 524-445, effective July 1, 1992. Monsanto now requests that the following Roundup herbicide supplemental labels also be approved for EPA Reg. No. 524-445, effective July 1, 1992. These supplemental labels have all been previously approved by the Agency under EPA Reg. No. 524-308.

Crop Uses:

1. Nonselective Control of Listed Annual Weeds in Small Grain Cropping Systems - for distribution and use only within South Dakota.
2. Postemergence Herbicide for Suppression of Quackgrass in Conventionally Tilled Annual Cropping Systems where Tillage has Occurred in the Previous Fall - for distribution and use only in the states of Minnesota and South Dakota.
3. Preharvest Weed Control in Cotton - for distribution and use only in west Texas.
4. Aerial Application for Johnsongrass Control Post-Harvest to Corn, Grain

5

Sorghum (Milo), and Wheat - for distribution and use only within New Mexico, Oklahoma and Texas.

5. Control of Field Bindweed under Irrigated Situations where Tillage is Performed - for distribution and use only in California.

Noncrop Uses:

1. Foliar Application to Suppress Growth and Seedhead Development of Listed Turf Species in Industrial Sites - for California only.
2. Low-Volume Backpack Applications of Roundup Herbicide for Trees and Brush.
3. Tank Mixtures of Roundup Herbicide Plus Arsenal™ Applicators Concentrate for Forestry Site Preparation Prior to Planting Douglas Fir in Washington and Oregon.
4. Roundup Herbicide Plus Arsenal 2 WSL for Noncrop Areas such as Non-Irrigation Ditchbanks, Dry Ditches, Dry Canals, Fencerows, Roadsides, Industrial Sites, Pipelines, Utility Rights-of-Way and Railroads.
5. Roundup Plus Diuron Plus Atrazine Herbicide Tank Mixture for Control or Partial control of Herbaceous Vegetation Only on Railroad Rights-of-Ways.
6. Roundup Herbicide Plus Garlon™ 4 Tank Mixture for Burndown and Partial Control or Suppression of Woody Brush and Weeds in Industrial Sites.
7. Roundup Herbicide Plus Oust™ and 2,4-D Amine for Noncrop Areas, Including Railroad Rights-of-Way, Utility Substations, Airports, Industrial Plants, Pipelines, Roadsides, Storage Areas, and Similar Sites.
8. Roundup Tank Mixture Combinations with 2,4-D Amine and Oust for Control of Trumpet creeper and Johnson grass on Railroad Rights-of-Way.
9. Tank Mixture of Roundup Plus Garlon 4 for Side Trimming of Woody Brush in Roadside and Right-of-Way Areas - for distribution and use only in Oklahoma and Texas.
10. For Ground and Aerial Application to Brush and Chaparral in California only.
11. Roundup Herbicide for Forestry and Utility Rights-of-Way.


Enclosed are five (5) copies of each of the amended supplemental labels for Agency approval and stamping. If you have any questions regarding this request, please contact Dr. Russ Schneider or me.

Sincerely,



Sheila A. Schuette, Ph.D.  
Senior Registration Specialist  
(314) 694-7248

cc: R.P. Schneider  
D.P. Ward  
R.G. Danhaus  
S.D. Schuette

(A) 	United States Environmental Protection Agency Office of Pesticide Programs (H7505C) Washington, DC 20460	<input type="checkbox"/> Registration <input checked="" type="checkbox"/> Amendment <input type="checkbox"/> Other	OPP Identifier Number  156756
	Application for Pesticide:		

## Section I

1. Company/Product Number Monsanto/524-445	2. EPA Product Manager Robert J. Taylor	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) MON-35085 Herbicide	PM# 25	
5. Name and Address of Applicant (Include ZIP Code) Monsanto Company 700 14th Street, N.W. Suite 1100 Washington, D.C. 20005 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to:  EPA Reg. No. _____ Product Name _____	

## Section II

<input checked="" type="checkbox"/> Amendment - Explain below	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Submission of supplemental labels for approval and stamping

## Section III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____	
* Certification must be submitted.		If "Yes," Unit Package wgt.	No. per container	If "Yes," Package wgt.	No. per container
3. Location of Net Contents Information <input type="checkbox"/> Label <input checked="" type="checkbox"/> Container		4. Size(s) of Retail Container 100 gal, bulk 1 gal, 2.5 gal, 30 gal, 54 gal		5. Location of Label Directions <input checked="" type="checkbox"/> On Label <input checked="" type="checkbox"/> On Labeling accompanying product	
6. Manner In Which Label Is Affixed To Product <input type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled		<input checked="" type="checkbox"/> Other (vinyl glued)			


## Section IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name Russell P. Schneider, Ph.D.	Title Agricultural Regulations Director	Telephone No. (Include Area Code) (202) 783-2460

## Certification

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

6. Date Application Received  
(Stamped)

2. Signature 	3. Title Senior Registration Specialist
4. Typed Name Sheila A. Schuette, Ph.D.	5. Date 3/10/92

RECEIVED  
EPA  
March 10, 1992  
Office of Pesticide Programs  
Washington, DC 20460

# PAPERWORK REDUCTION ACT NOTICE and INSTRUCTIONS

**PAPERWORK REDUCTION ACT NOTICE:** Public reporting burden for this collection of information is estimated to average 0.85 hour per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, PH-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

**INSTRUCTIONS:** This form is to be used for all applications for new registration, end use reregistration, amendment, resubmission, to applications for notifications, final printed labeling, reregistration, etc. In order to process an application for a new registration submitted on this form, the following material must accompany the application:

1. Certification with Respect to Citation of Data (EPA Form 8570-29). [If not exempted by 40 CFR 152.81 (b) (4)];
2. Confidential Statement of Formula (EPA Form 8570-4);
3. Formulator's Exemption Statement (EPA Form 8570-27);
4. Five copies of draft labeling;
5. Three copies of any data submitted;
6. Authorization letter where applicable;
7. Matrices where applicable.

Submission of Labeling - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8.5 x 11 inch paper or a mockup of the proposed label. If prepared as a mockup, it should be constructed in such a way as to facilitate storage in an 8.5 x 11 inch file. Mockup labels significantly smaller than 8.5 x 11 inches should be mounted on 8.5 x 11 inch paper for submission.

\*Submission of Data - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

**SPECIFIC INSTRUCTIONS:** Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Sections I, III, and IV must be completed by the applicant. For applications submitted in connection with amended registration actions, resubmissions, notifications, reregistrations, etc., Sections I, II, and IV must be completed by the applicant.

Block A - Check the appropriate action for which you are submitting this form.

**SECTION I** - This section must be completed, as applicable, for all registration actions.

1. **Company/Product Number** - Insert your Company Number, if one has been assigned by EPA. This number may have been assigned to you as a basic registrant, a distributor, or as an establishment. If your product is registered, insert the Product Number.
2. **EPA Product Manager** - If known, fill in the name and PM number of the EPA Product Manager.
3. **Proposed Classification** - Specify the proposed classification of this product.
4. **Product Name** - Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.
5. **Name and Address of Applicant** - The name of the firm or person and address shown in your application is the person or firm to whom the registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.
6. **Expedited Review** - FIFRA section 3 (c) 3 (B) provides for expedited review of applications for registration, or amendments to existing registrations, that are similar or identical to other pesticide products that are currently registered with the EPA. In order for your application to be eligible for expedited review, you must provide us with the EPA Registration Number and product name of the product you believe is similar to or identical to your product. The product must be similar or identical in both formulation and labeled uses.

**SECTION II** - This section must be completed for all applications submitted to amend the registration only of a currently registered product (Amendment), for a resubmission in response to an Agency letter, for notifications to the Agency, for the submission of final printed labeling, for reregistration and for any other action that pertains to a specific EPA-registered product. This section is not to be used for a new application for registration.

1. **Subject of submission** - Check the applicable block and provide the Agency letter date if appropriate. Provide a brief explanation of the purpose(s) for the submission, such as "the addition of a site, pest or crop (specify)"; "amend the Confidential Statement of Formula by..."; "reregistration submission"; general label revision of use directions. Attach a separate page if additional space is needed.

**SECTION III (Packaging and Container Information)** - This Section must be completed for all applications submitted in connection with new registration or applicable amendments.

1. **Type of Packaging** - Check the appropriate block if your product will be packaged in the indicated packaging types. Indicate the size of the individual packets and number per retail container.
2. **Type of Retail Container** - Indicate type of container in which product will be marketed.
3. **Location of Net Contents** - Specify the net contents of all retail containers for your product.
4. **Size(s) of Retail Container** - Specify the net contents of all retail containers for your product.
5. **Location of Use Directions** - Indicate the location of the use directions for your product.
6. **Manner in which label is affixed to product** - Indicate the method product label is attached to retail container.

**SECTION IV (Contact Point)** - This Section must be completed for all applications for Registration actions, i.e., new products registration, resubmission, "me-too," reregistration, etc.

- 1-5. Self-explanatory.  
6. EPA Use Only.



United States Environmental Protection Agency  
Washington, DC 20460

**CERTIFICATION WITH RESPECT TO  
DATA COMPENSATION REQUIREMENTS**

Form Approved

OMB No. 2070-0106

Approval Expires 12-31-92

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M St., S.W., Washington, DC 20460; and to the Office of Management and Budget, Paperwork Reduction Project (2070-0106), Washington, DC 20503.

Please fill in blanks below.

Company Name <i>Monsanto Company</i>	Company Number <i>524</i>
Chemical Name <i>MON-35085</i>	EPA Chemical Number <i>445</i>

I Certify that:

- For each study cited in support of registration or reregistration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) that is an exclusive use study, I am the original data submitter, or I have obtained the written permission of the original data submitter to cite that study.
- That for each study cited in support of registration or reregistration under FIFRA that is NOT an exclusive use study, I am the original data submitter, or I have obtained the written permission of the original data submitter, or I have notified in writing the company(ies) that submitted data I have cited and have offered to: (a) Pay compensation for those data in accordance with sections 3(c)(1)(D) and 3(c)(2)(D) of FIFRA; and (b) Commence negotiation to determine which data are subject to the compensation requirement of FIFRA and the amount of compensation due, if any. The companies I have notified are: (check one)  
☐ All companies on the data submitters' list for the active ingredient listed on this form (Cite-All Method or Cite-All Option under the Selective Method). (Also sign the General Offer to Pay below.)  
☐ The companies who have submitted the studies listed on the back of this form or attached sheets, or indicated on the attached "Requirements Status and Registrants' Response Form."
- That I have previously complied with section 3(c)(1)(D) of FIFRA for the studies I have cited in support of registration or reregistration under FIFRA.

Signature <i>Russ Schneider</i> for <i>Dr. Sheila Schuette</i>	Date <i>3/26/92</i>
Name and Title (Please Type or Print) <i>Russell P. Schneider, Ph.D., Agricultural Regulation Director</i>	

GENERAL OFFER TO PAY: I hereby offer and agree to pay compensation to other persons, with regard to the registration or reregistration of my products, to the extent required by FIFRA sections 3(c)(1)(D) and 3(c)(2)(D).

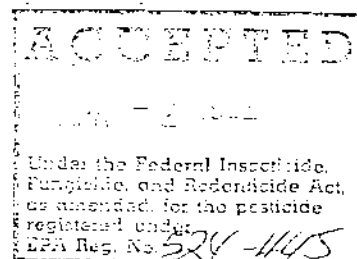
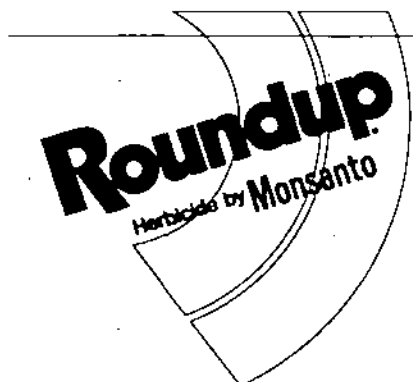
Signature <i>Russ Schneider</i> for <i>Dr. Sheila Schuette</i>	Date <i>3/26/92</i>
Name and Title (Please Type or Print) <i>Russell P. Schneider, Ph.D., Agricultural Regulation Director</i>	

Subject

## SUPPLEMENTAL LABELING

READ AND FOLLOW THE ENTIRE LABEL FOR ROUNDUP® HERBICIDE BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labeling refers to the label booklet for Roundup and this supplement.



EPA Reg. No. 524-445

FOR DISTRIBUTION AND USE ONLY WITHIN SOUTH DAKOTA.  
FOR NONSELECTIVE CONTROL OF LISTED ANNUAL WEEDS  
IN SMALL GRAIN CROPPING SYSTEMS.

Keep out of reach of children.

### WARNING!

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

Roundup® is a registered trademark of Monsanto Company.

### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with the labeling.

This label must be in the possession of the user at the time of the herbicide application.

#### ANNUAL WEED CONTROL WEEDS CONTROLLED

Refer to the "RECOMMENDED RATES AND WEEDS CONTROLLED" section of the label booklet for Roundup for rate recommendations and the annual weeds controlled.

#### APPLICATION INSTRUCTIONS

For ground applications, use 3 to 5 gallons of water per acre. For aerial applications, use 1 to 3 gallons of water per acre.

#### ATTENTION

**AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS.**

Do not allow the herbicide solution to mist, drip, drift, or splash onto desirable vegetation since minute quantities of this herbicide

can cause severe damage or destruction to the crop, plants or other areas on which treatment was not intended. The likelihood of injury occurring from the use of this product is greatest when winds are gusty or in excess of 5 miles per hour or when other conditions, including lesser wind velocities, will allow spray drift to occur. When spraying, avoid combinations of pressure and nozzle type that will result in splatter or fine particles (mist) which are likely to drift. **AVOID APPLYING AT EXCESSIVE SPEED OR PRESSURE.**

#### NOTE

- To prevent injury to adjacent desirable vegetation, appropriate buffer zones must be maintained.
- Adjust boom height on ground equipment to prevent streaked, overlapped or uneven applications. Coarse sprays are less likely to drift; therefore, do not use nozzles or nozzle configurations which dispense spray as fine spray droplets.
- In aerial applications, do not angle nozzles forward into the airstream and do not increase spray volume by increasing nozzle pressure.
- Ensure uniform application. Use appropriate marking devices when applying herbicides by air.

- Avoid spraying when weeds are subject to moisture stress, when dust is on foliage, or when straw canopy covers the weeds.
- Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove residue of this product accumulated during spraying or from spills. **PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF PART. LANDING GEAR ARE MOST SUSCEPTIBLE.** The maintenance of an organic coating (paint) which meets aerospace specification MIL-C-38413 may prevent corrosion.

All applicable directions, restrictions and precautions on the EPA registered label are to be followed.

Read the "LIMIT OF WARRANTY AND LIABILITY" in the label booklet for Roundup before using this product. Those terms apply to this supplemental labeling and, if those terms are not acceptable, return the product unopened at once.

© MONSANTO COMPANY  
MONSANTO COMPANY  
AGRICULTURAL PRODUCTS  
ST. LOUIS, MISSOURI 63167



Dr. Sheila A. Schuette  
Monsanto Company  
700 14th Street, NW., Suite 1100  
Washington, DC 20005

Dear Dr. Schuette:

Subject: MON-35085 Herbicide (Add the Brand Name "Roundup Super  
Concentrate Grass & Weed Killer")  
EPA Registration No. 524-445  
Your Letter Dated March 10, 1992

The registration record for the product named above has been amended  
to include the additional brand name "Roundup Super Concentrate Grass and  
Weed Killer." This name will be effective under the file number on  
July 1, 1992.

The labeling referred to above, submitted in connection with  
registration under the Federal Insecticide, Fungicide, and Rodenticide  
Act, as amended, is acceptable. Please submit five (5) copies of your  
final printed labeling before you release the product for shipment. A  
stamped copy of labeling is enclosed for your records.

This labeling will become effective July 1, 1992.

Sincerely yours,

Robert J. Taylor  
Product Manager (25)  
Fungicide-Herbicide Branch  
Registration Division (H7505C)

Enclosure

56075:I:Taylor:WP25-4:KEVRIC:03/30/92:04/30/92:rj:dd:rj

CONCURRENCES

SYMBOL	H7505C								12
SURNAME	UK Walker								
DATE	4/1/92								



SUBMISSION REVIEW RECORD		1. REGISTRATION NUMBER		CYCLE		2. DATE RECEIVED	
3. JCID PUBLICATION NECESSARY		4. PETITION NO.		5. RECEIVED PM TEAM		6. PROJECTED RETURN	
6. METHOD OF SUPPORT		7. PRODUCT MANAGER		8. OUTGOING DATE		9. DATE REVIEW COMPLETED	
9. DATE PULLED		10. DATE PUBLISHED		11. ACTION TYPE		12. OUTGOING DATE	
13. REVIEW TYPE		14. REVIEWER CODE (Initials)		15. SIGNATURE OF REVIEWER		16. COMMENT CODE	
<input type="checkbox"/> YES <input type="checkbox"/> NO							
<input type="checkbox"/> 2A <input type="checkbox"/> 2B <input type="checkbox"/> 2C							
3/25/92				Add the Brand name "Friendship Super Concentrate" 4-10-92 300			
A		REVIEWABILITY TEAM					
B		PRODUCT MANAGER TEAM EFFICACY REVIEW					
C		PRODUCT MANAGER TEAM HUMAN SAFETY REVIEW					
D		PRODUCT MANAGER TEAM ENVIRONMENTAL SAFETY REVIEW					
E		PRODUCT MANAGER TEAM RESUBMISSION REVIEW					
F		PRODUCT MANAGER		VKW NAC		0/3 2/5 9/2	
G		INTERAGENCY REFERRAL					
H		COST-BENEFIT REVIEW					
I		PUBLIC COMMENTS REVIEW					
J		EEE BRANCH INSECTICIDE EFFICACY					
K		EEE BRANCH HERBICIDE EFFICACY					
L		EEE BRANCH FUNGICIDE EFFICACY					
M		EEE BRANCH RODENTICIDE EFFICACY					
N		EEE BRANCH DISINFECTANT EFFICACY					
O		CHEMISTRY BRANCH RESIDUE CHEMISTRY					
P		EEE BRANCH ENVIRONMENTAL CHEMISTRY					
Q		TOXICOLOGY BRANCH HUMAN SAFETY					
R		EEE BRANCH ENVIRONMENTAL SAFETY					
S							
T							
PRODUCT MANAGER SIGNATURE				TYPE OF RESPONSE			
				CODE			

# Monsanto

Monsanto Company  
Suite 1100  
700 14th Street, N.W.  
Washington, D.C. 20005

March 10, 1992

Office of Pesticide Programs - H7504C  
Document Processing Desk  
U.S. Environmental Protection Agency  
Room 226A, Crystal Mall #2  
1921 Jefferson Davis Highway  
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor  
Product Manager (25)

Subject: **MON-35085 Herbicide (EPA Reg. No. 524-445)**  
**Addition of Brand Name / Submission of Amended Labels**

Dear Sir:

Monsanto requests that the following brand name be added to EPA Reg. No. 524-445, effective July 1, 1992:

**Roundup® Super Concentrate Grass & Weed Killer**

Enclosed are five (5) copies each of the amended label texts for Roundup Super Concentrate Grass & Weed Killer (1 quart and 1 gallon sizes) for your approval and stamping. These labels are identical to the MON-35085 Super Concentrate Grass & Weed Killer label that was approved by the Agency on March 18, 1991, with the following minor changes:

1. The statement "Mix 3 to 5 tablespoons" was added to the front panel to aid the user in converting from fluid ounces to tablespoons.
2. The new wetlands statement has been added to the Environmental Hazards section.


Monsanto requests that you approve and stamp these amended labels. If you have any questions regarding this request, please contact Dr. Russ Schneider or me.

Sincerely,



Sheila A. Schuette, Ph.D.  
Senior Registration Specialist  
(314) 694-7248

cc: R.P. Schneider  
D.P. Ward  
D.E. Brock  
S.D. Schuette

(A) 	United States Environmental Protection Agency Office of Pesticide Programs (H7505C) Washington, DC 20460	<input type="checkbox"/> Registration <input checked="" type="checkbox"/> Amendment <input type="checkbox"/> Other	OPP Identifier Number  156755
	Application for Pesticide:		

## Section I

1. Company/Product Number Monsanto/524-445	2. EPA Product Manager Robert J. Taylor	3. Proposed Classification  <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) MON-35085 Herbicide	PM# 25	
5. Name and Address of Applicant (Include ZIP Code) Monsanto Company 700 14th Street, N.W. Suite 1100 Washington, D.C. 20005 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to:  EPA Reg. No. _____ Product Name _____	

## Section II

<input checked="" type="checkbox"/> Amendment - Explain below	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

1. Addition of new brand name: Roundup® Super Concentrate Grass & Weed Killer
2. Submission of amended label text

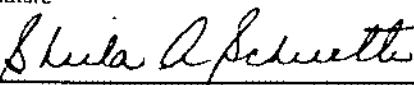
## Section III

1. Material This Product Will Be Packaged In:			
Child-Resistant Packaging <input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No	Unit Packaging <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2. Type of Container  <input type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____
* Certification must be submitted.		If "Yes," Unit Package wgt.      No. per container	
1 qt., 1 gal.		12 case/4 case	
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container	4. Size(s) of Retail Container 1 qt., 1 gal.	5. Location of Label Directions <input checked="" type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product	
6. Manner in Which Label is Affixed To Product <input type="checkbox"/> Lithograph <input checked="" type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled		<input type="checkbox"/> Other (_____)	

## Section IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name Russell P. Schneider, Ph.D.	Title Agricultural Regulations Director	Telephone No. (Include Area Code) (202) 783-2460

## Certification

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received (Stamped)  16
2. Signature 	3. Title Senior Registration Specialist	
4. Typed Name Sheila A. Schuette, Ph.D.	5. Date 3/10/92	

## PAPERWORK REDUCTION ACT NOTICE and INSTRUCTIONS

**PAPERWORK REDUCTION ACT NOTICE:** Public reporting burden for this collection of information is estimated to average 0.85 hour per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, PH-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

**INSTRUCTIONS:** This form is to be used for all applications for new registration, end use reregistration, amendment, resubmission, to applications for notifications, final printed labeling, reregistration, etc. In order to process an application for a new registration submitted on this form, the following material must accompany the application:

1. Certification with Respect to Citation of Data (EPA Form 8570-29). [If not exempted by 40 CFR 152.81 (b) (4)];
2. Confidential Statement of Formula (EPA Form 8570-4);
3. Formulator's Exemption Statement (EPA Form 8570-27);
4. Five copies of draft labeling;
5. Three copies of any data submitted;
6. Authorization letter where applicable;
7. Matrices where applicable.

**Submission of Labeling** - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8.5 x 11 inch paper or a mockup of the proposed label. If prepared as a mockup, it should be constructed in such a way as to facilitate storage in an 8.5 x 11 inch file. Mockup labels significantly smaller than 8.5 x 11 inches should be mounted on 8.5 x 11 inch paper for submission.

**Submission of Data** - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

**SPECIFIC INSTRUCTIONS:** Please read the instructions listed below before completing this application. First, determine the type of registration action, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Sections I, III, and IV must be completed by the applicant. For applications submitted in connection with amended registration actions, resubmissions, notifications, reregistrations, etc., Sections I, II, and IV must be completed by the applicant.

**Block A** - Check the appropriate action for which you are submitting this form.

**SECTION I** - This section must be completed, as applicable, for all registration actions.

1. **Company/Product Number** - Insert your Company Number, if one has been assigned by EPA. This number may have been assigned to you as a basic registrant, a distributor, or as an establishment. If your product is registered, insert the Product Number.
2. **EPA Product Manager** - If known, fill in the name and PM number of the EPA Product Manager.
3. **Proposed Classification** - Specify the proposed classification of this product.
4. **Product Name** - Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.
5. **Name and Address of Applicant** - The name of the firm or person and address shown in your application is the person or firm to whom the registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.
6. **Expedited Review** - FIFRA section 3 (c) 3. (B) provides for expedited review of applications for registration, or amendments to existing registrations, that are similar or identical to other pesticide products that are currently registered with the EPA. In order for your application to be eligible for expedited review, you must provide us with the EPA Registration Number and product name of the product you believe is similar to or identical to your product. The product must be similar or identical in both formulation and labeled uses.

**SECTION II** - This section must be completed for all applications submitted to amend the registration only of a currently registered product (Amendment), for a resubmission in response to an Agency letter, for notifications to the Agency, for the submission of final printed labeling, for reregistration and for any other action that pertains to a specific EPA-registered product. This section is not to be used for a new application for registration.

1. **Subject of submission** - Check the applicable block and provide the Agency letter date if appropriate. Provide a brief explanation of the purpose(s) for the submission, such as "the addition of a site, pest or crop (specify)"; "amend the Confidential Statement of Formula by..."; "reregistration submission"; general label revision of use directions." Attach a separate page if additional space is needed.

**SECTION III (Packaging and Container Information)** - This Section must be completed for all applications submitted in connection with new registration or applicable amendments.

1. **Type of Packaging** - Check the appropriate block if your product will be packaged in the indicated packaging types. Indicate the size of the individual packets and number per retail container.
2. **Type of Retail Container** - Indicate type of container in which product will be marketed.
3. **Location of Net Contents** - Specify the net contents of all retail containers for your product.
4. **Size(s) of Retail Container** - Specify the net contents of all retail containers for your product.
5. **Location of Use Directions** - Indicate the location of the use directions for your product.
6. **Manner in which label is affixed to product** - Indicate the method product label is attached to retail container.

**SECTION IV (Contact Point)** - This section must be completed for all applications for Registration actions, i.e., new products registration, resubmission, "me-too," reregistration, etc.

- 1-5. Self-explanatory.
6. EPA Use Only.

# KEEP PEOPLE AND PETS OFF TREATED AREAS UNTIL SPRAY SOLUTION HAS DRIED

**DOMESTIC ANIMALS:** This product is considered to be relatively nontoxic to dogs and other domestic animals. However, ingestion of this product or large amounts of freshly sprayed vegetation may result in temporary gastrointestinal irritation (vomiting, diarrhea, colic, etc.) If such symptoms are observed, provide the animal with plenty of fluids to prevent dehydration. Call a veterinarian if symptoms persist for more than 24 hours.

## ADDITIONAL PRECAUTIONS

**DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS.** This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flame or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

Roundup is a nonselective herbicide that is diluted and applied to the foliage of actively growing weeds as a spot or broadcast application. It is absorbed by the leaves and

PROOF  
OF PURCHASE

moves throughout the stem and roots to control the entire plant. Visible symptoms may require a week or more to appear, with burndown usually occurring in 2 to 4 weeks. Symptoms are a gradual wilting and yellowing of the sprayed plant followed by deterioration of both shoots and roots. This product has no herbicidal activity in the soil and will not wash or leach to affect nearby vegetation.

This product controls many weeds around buildings, vacant lots, storage and recreational areas, gravel or ground, park walks, shade trees, ornamentals and shrubs; along fences, sidewalks, driveways and porches; and prior to planting (lawngrasses, shrubs, flower beds or vegetables listed on the label). When used as a spot treatment in lawns, all vegetation contacted will be damaged.

**THIS PRODUCT CAN INJURE OR DESTROY ALL VEGETATION CONTACTED. AVOID SPRAY DRIFT CONTACT WITH DESIRABLE LAWN GRASSES, FLOWERS, VEGETABLES, SHRUBS OR TREES. DO NOT CONTACT GREEN BARK OF TREES OR SHRUBS. IF DESIRABLE VEGETATION IS CONTACTED, WASH IMMEDIATELY WITH WATER.**

For more product information, call toll-free 1-800-225-2093

## Storage and Disposal

Do not contaminate water, food, feed or seed by storage or disposal.

### STORAGE

Store this product in its original container and in a secured storage area.

In case of SPILL or LEAK, soak up with paper towels and discard in trash.

2

## DISPOSAL

To dispose of unused product, securely wrap original container in several layers of newspaper and discard in trash.

Empty container retains vapor and product residue. Observe all labeled warnings until container is discarded.

Do not reuse container. Rinse thoroughly before discarding in trash.

## WEEDS CONTROLLED

When applied as recommended under the conditions described, Roundup controls many common weeds including the following:

### Annuals

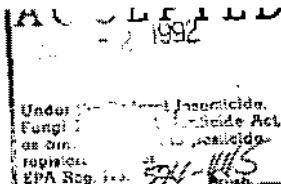
Barnyardgrass  
Barnyardgrass, annual  
Chickweed  
Crabgrass  
Foxtail  
Lambquarters, common  
Lambs, prickly  
Mustard, hairy

Pennycress, field  
Ragweed, redroot, smooth  
Ragweed, common  
Ryegrass, annual  
Sandbox, field  
Shepherdspurse  
Sowthistle

### Perennials

Bahia grass  
Bermudagrass  
Bindweed, field  
Bluegrass, Kentucky  
Bromegrass, smooth  
Clover, red, white  
Cultigrass  
Dandelion  
Fescue species  
Fescue, tall

Johnsongrass  
Muskogee, purple, yellow  
Orchardgrass  
Quackgrass  
Ryegrass, perennial  
Timothy  
Vetivergrass



Alder  
Blackberry  
Cherry  
Cockspur  
Elderberry  
Hawthorn  
Honeylocust  
Kudzu  
Oak

Poison Ivy  
Poison Oak  
Raspberry  
Rose, multiflora  
Sumac  
Trumpcreeper  
Willow

## MIXING AND SPRAYING

Do not apply this product through any type of irrigation system.

**Hand-held Sprayers:** Add 1-1/2 to 2-1/2 fluid ounces (3 to 5 tbsp.) of this product to 1 gallon of clean water. Use the higher recommended rate for control of listed perennials and brush. Use pump-up-type or hand-trigger-type sprayer. USE OF HOSE-END SPRAYERS OR SPRINKLER-TYPE DEVICES MAY RESULT IN POOR AND/OR ERRATIC RESULTS.

Ensure uniform and complete spray coverage, but do not spray plants to the point that the spray solution runs off. Use a coarse spray. Do not spray during windy conditions, as spray drift may cause damage to any vegetation contacted.

## WHEN TO APPLY

Apply to vigorously growing plants. Apply to annual weeds anytime after emergence. For best results, apply to perennial weeds after seedheads, leaves or berries appear. On woody brush or trees, apply after leaves have fully expanded. Applications made at less than the recommended stage of growth may result in reduced control. After mowing, clipping or tilling, allow weeds to

4

3

15. 17. 1961. 10. 10. 1961. 11. 10. 1961. 12. 10. 1961. 13. 10. 1961. 14. 10. 1961. 15. 10. 1961. 16. 10. 1961. 17. 10. 1961. 18. 10. 1961. 19. 10. 1961. 20. 10. 1961. 21. 10. 1961. 22. 10. 1961. 23. 10. 1961. 24. 10. 1961. 25. 10. 1961. 26. 10. 1961. 27. 10. 1961. 28. 10. 1961. 29. 10. 1961. 30. 10. 1961. 31. 10. 1961. 1. 11. 1961. 2. 11. 1961. 3. 11. 1961. 4. 11. 1961. 5. 11. 1961. 6. 11. 1961. 7. 11. 1961. 8. 11. 1961. 9. 11. 1961. 10. 11. 1961. 11. 11. 1961. 12. 11. 1961. 13. 11. 1961. 14. 11. 1961. 15. 11. 1961. 16. 11. 1961. 17. 11. 1961. 18. 11. 1961. 19. 11. 1961. 20. 11. 1961. 21. 11. 1961. 22. 11. 1961. 23. 11. 1961. 24. 11. 1961. 25. 11. 1961. 26. 11. 1961. 27. 11. 1961. 28. 11. 1961. 29. 11. 1961. 30. 11. 1961. 1. 12. 1961. 2. 12. 1961. 3. 12. 1961. 4. 12. 1961. 5. 12. 1961. 6. 12. 1961. 7. 12. 1961. 8. 12. 1961. 9. 12. 1961. 10. 12. 1961. 11. 12. 1961. 12. 12. 1961. 13. 12. 1961. 14. 12. 1961. 15. 12. 1961. 16. 12. 1961. 17. 12. 1961. 18. 12. 1961. 19. 12. 1961. 20. 12. 1961. 21. 12. 1961. 22. 12. 1961. 23. 12. 1961. 24. 12. 1961. 25. 12. 1961. 26. 12. 1961. 27. 12. 1961. 28. 12. 1961. 29. 12. 1961. 30. 12. 1961. 1. 1. 1962. 2. 1. 1962. 3. 1. 1962. 4. 1. 1962. 5. 1. 1962. 6. 1. 1962. 7. 1. 1962. 8. 1. 1962. 9. 1. 1962. 10. 1. 1962. 11. 1. 1962. 12. 1. 1962. 1. 2. 1962. 2. 2. 1962. 3. 2. 1962. 4. 2. 1962. 5. 2. 1962. 6. 2. 1962. 7. 2. 1962. 8. 2. 1962. 9. 2. 1962. 10. 2. 1962. 11. 2. 1962. 12. 2. 1962. 1. 3. 1962. 2. 3. 1962. 3. 3. 1962. 4. 3. 1962. 5. 3. 1962. 6. 3. 1962. 7. 3. 1962. 8. 3. 1962. 9. 3. 1962. 10. 3. 1962. 11. 3. 1962. 12. 3. 1962. 1. 4. 1962. 2. 4. 1962. 3. 4. 1962. 4. 4. 1962. 5. 4. 1962. 6. 4. 1962. 7. 4. 1962. 8. 4. 1962. 9. 4. 1962. 10. 4. 1962. 11. 4. 1962. 12. 4. 1962. 1. 5. 1962. 2. 5. 1962. 3. 5. 1962. 4. 5. 1962. 5. 5. 1962. 6. 5. 1962. 7. 5. 1962. 8. 5. 1962. 9. 5. 1962. 10. 5. 1962. 11. 5. 1962. 12. 5. 1962. 1. 6. 1962. 2. 6. 1962. 3. 6. 1962. 4. 6. 1962. 5. 6. 1962. 6. 6. 1962. 7. 6. 1962. 8. 6. 1962. 9. 6. 1962. 10. 6. 1962. 11. 6. 1962. 12. 6. 1962. 1. 7. 1962. 2. 7. 1962. 3. 7. 1962. 4. 7. 1962. 5. 7. 1962. 6. 7. 1962. 7. 7. 1962. 8. 7. 1962. 9. 7. 1962. 10. 7. 1962. 11. 7. 1962. 12. 7. 1962. 1. 8. 1962. 2. 8. 1962. 3. 8. 1962. 4. 8. 1962. 5. 8. 1962. 6. 8. 1962. 7. 8. 1962. 8. 8. 1962. 9. 8. 1962. 10. 8. 1962. 11. 8. 1962. 12. 8. 1962. 1. 9. 1962. 2. 9. 1962. 3. 9. 1962. 4. 9. 1962. 5. 9. 1962. 6. 9. 1962. 7. 9. 1962. 8. 9. 1962. 9. 9. 1962. 10. 9. 1962. 11. 9. 1962. 12. 9. 1962. 1. 10. 1962. 2. 10. 1962. 3. 10. 1962. 4. 10. 1962. 5. 10. 1962. 6. 10. 1962. 7. 10. 1962. 8. 10. 1962. 9. 10. 1962. 10. 10. 1962. 11. 10. 1962. 12. 10. 1962. 1. 11. 1962. 2. 11. 1962. 3. 11. 1962. 4. 11. 1962. 5. 11. 1962. 6. 11. 1962. 7. 11. 1962. 8. 11. 1962. 9. 11. 1962. 10. 11. 1962. 11. 11. 1962. 12. 11. 1962. 1. 12. 1962. 2. 12. 1962. 3. 12. 1962. 4. 12. 1962. 5. 12. 1962. 6. 12. 1962. 7. 12. 1962. 8. 12. 1962. 9. 12. 1962. 10. 12. 1962. 11. 12. 1962. 12. 12. 1962. 1. 1. 1963. 2. 1. 1963. 3. 1. 1963. 4. 1. 1963. 5. 1. 1963. 6. 1. 1963. 7. 1. 1963. 8. 1. 1963. 9. 1. 1963. 10. 1. 1963. 11. 1. 1963. 12. 1. 1963. 1. 2. 1963. 2. 2. 1963. 3. 2. 1963. 4. 2. 1963. 5. 2. 1963. 6. 2. 1963. 7. 2. 1963. 8. 2. 1963. 9. 2. 1963. 10. 2. 1963. 11. 2. 1963. 12. 2. 1963. 1. 3. 1963. 2. 3. 1963. 3. 3. 1963. 4. 3. 1963. 5. 3. 1963. 6. 3. 1963. 7. 3. 1963. 8. 3. 1963. 9. 3. 1963. 10. 3. 1963. 11. 3. 1963. 12. 3. 1963. 1. 4. 1963. 2. 4. 1963. 3. 4. 1963. 4. 4. 1963. 5. 4. 1963. 6. 4. 1963. 7. 4. 1963. 8. 4. 1963. 9. 4. 1963. 10. 4. 1963. 11. 4. 1963. 12. 4. 1963. 1. 5. 1963. 2. 5. 1963. 3. 5. 1963. 4. 5. 1963. 5. 5. 1963. 6. 5. 1963. 7. 5. 1963. 8. 5. 1963. 9. 5. 1963. 10. 5. 1963. 11. 5. 1963. 12. 5. 1963. 1. 6. 1963. 2. 6. 1963. 3. 6. 1963. 4. 6. 1963. 5. 6. 1963. 6. 6. 1963. 7. 6. 1963. 8. 6. 1963. 9. 6. 1963. 10. 6. 1963. 11. 6. 1963. 12. 6. 1963. 1. 7. 1963. 2. 7. 1963. 3. 7. 1963. 4. 7. 1963. 5. 7. 1963. 6. 7. 1963. 7. 7. 1963. 8. 7. 1963. 9. 7. 1963. 10. 7. 1963. 11. 7. 1963. 12. 7. 1963. 1. 8. 1963. 2. 8. 1963. 3. 8. 1963. 4. 8. 1963. 5. 8. 1963. 6. 8. 1963. 7. 8. 1963. 8. 8. 1963. 9. 8. 1963. 10. 8. 1963.

FRONT

.....

IN CASE OF AN EMERGENCY, CONTACT THE BUREAU OF PRISONERS AT: 1-800-451-3030

[illegible][illegible]

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticide  
registered under:  
EPA Reg. No. 24-125

**Super Concentrate**

## by Margaret

## Grass & Weed Killer

- COMES UP TO 4,000 SQUARE FEET
- DOES NOT HAVE SIDE ACCESS
- FULLY LABELED AIRSIDE AND PERMANENT GRASSES, TREES AND BUSHES
- TROPICAL WILDERNESS - PLANTS GROWER AND ALL
- SUITABLE FOR USE AIRSIDE POWER LINE, TREES, SHRUBS, FENCES AND PERMANENT
- USED TO HOLD PEOPLE DURING SALES
- LOW, HIGH AND MEDIUM GROUND

\* RCUK ESMC 0000000000000000

THE NEW YORK PUBLIC LIBRARY  
ASTOR LENOX TILDEN FOUNDATION  
125 WEST 4TH STREET  
NEW YORK, N. Y. 10013

**WARNING!** Keep out of reach of children.

1995-1996

Capacitate 2. ~~procedura de~~  
in the form of its responsibility and

IN(14)(D)47 3901

1000

NET 32 fl.oz.(1 qt)

17-00000

Any ornamental species may be planted in treated areas 7 days or more after application. Apply this product as recommended to control undesirable vegetation growing around ornamentals, trees or shrubs. Avoid spray contact with any desirable plants. To avoid injury on desirable plants, prevent spray or drift contact with foliage, stems or green bark. Do not spray into, or over the top of, growing ornamentals.

Wash hose spray tank and flush all sprayer components with water to remove residues of this product. After thorough cleaning, equipment may be used to apply other products.

In case of an emergency involving this product,  
 Call Customer Care or your doctor (314) 694-4000.

INERT INGREDIENTS: ..... 59.04

MONSANTO COMPANY  
AGRICULTURAL PRODUCTS  
ST. LOUIS, MISSOURI 63167 U.S.A.

Intermittent is postulated to be 1. Patient No. 4 (25,32), 12th year, pending. No increase grade under any event 11.5. Patient 12.



MONSANTO COMPANY  
AGRICULTURAL PRODUCTS  
55, FOLDS, WYOMING 82193-6344  
MONSANTO COMPANY: 199  
EPA Reg No 524-xx  
EPA Id 12416  
MS-17-211-21-2



APR - 2 1992

Dr. Sheila A. Schuette  
Monsanto Company  
700 14th Street, NW., Suite 1100  
Washington, DC 20005

Dear Dr. Schuette:

Subject: MON-35085 (Add the Brand Name "Roundup" and Submit Final Labels  
with Name)  
EPA Registration No. 524-445  
Your Letter Dated March 10, 1992

The registration record for the product mentioned above has been amended to include the additional brand name "Roundup" including Roundup in the C-Pak Container. This name will be effective under this file number on July 1, 1992.

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable. A stamped copy is enclosed for your records.

The above labeling will become effective July 1, 1992.

Sincerely yours,

Robert J. Taylor  
Product Manager (25)  
Fungicide-Herbicide Branch  
Registration Division (H7505C)

Enclosure

56075:I:A-4:Taylor:WP25-4:KEVRIC:03/30/92:04/30/92:rj:dd:rj

| CONCURRENCES |            |  |  |  |  |  |    |
|--------------|------------|--|--|--|--|--|----|
| SYMBOL       | H 7505C    |  |  |  |  |  |    |
| SURNAME      | VIC Waller |  |  |  |  |  | 21 |
| DATE         | 4/4/92     |  |  |  |  |  |    |

EPA Form 1320-1 (12-70)

OFFICIAL FILE COPY

| SUBMISSION REVIEW RECORD  |                  |  |                          | SUBMISSION NUMBER   |                          | CYCLE          | DATE RECEIVED         |      |     |    |
|---|------------------|--|--------------------------|---|--------------------------|----------------|-----------------------|------|-----|----|
| G   |                  |  |                          | 324-  |                          | 845            | MO                    | DAY  | YR  |    |
| 3. 3C10 PUBLICATION NECESSARY   |                  |  |                          | 4. PETITION NO.   |                          |                | 5. RECEIVED PM TEAM   |      |     |    |
| <input type="checkbox"/> YES <input type="checkbox"/> NO                            |                  |  |                          |   |                          |                | MO                    | DAY  | YR  |    |
| 6. METHOD OF SUPPORT  |                  |  |                          | 7. PRODUCT MANAGER  |                          |                | 8. PROJECTED RETURN   |      |     |    |
| <input type="checkbox"/> 2A <input type="checkbox"/> 2B <input type="checkbox"/> 2C |                  |  |                          |   |                          |                | NO.                   | MO   | DAY | YR |
| 9. DATE PULLED  |                  | 10. DATE PUBLISHED                               |                          | 11. ACTION TYPE   |                          |                | 12. OUTGOING DATE     |      |     |    |
| 3/25/92   |                  |  |                          | add brand name Revise<br>off 7/1/92 + final print label<br>leaving number 300 |                          |                | CODE                  | MO   | DAY | YR |
| REV. SEQ.   | REVIEW TYPE CODE | REVIEW TYPE                                      | REVIEWER CODE (Initials) | SIGNATURE OF REVIEWER   |                          | COM. MENT CODE | DATE REVIEW COMPLETED |      |     |    |
|   |                  |  |                          |   |                          |                | MO                    | DAY  | YR  |    |
| A   |                  | REVIEWABILITY TEAM                               |                          |   |                          |                |                       |      |     |    |
| B   |                  | PRODUCT MANAGER TEAM EFFICACY REVIEW             |                          |   |                          |                |                       |      |     |    |
| C   |                  | PRODUCT MANAGER TEAM HUMAN SAFETY REVIEW         |                          |   |                          |                |                       |      |     |    |
| D   |                  | PRODUCT MANAGER TEAM ENVIRONMENTAL SAFETY REVIEW |                          |   |                          |                |                       |      |     |    |
| E   |                  | PRODUCT MANAGER TEAM RESUBMISSION REVIEW         |                          |   |                          |                |                       |      |     |    |
| F   |                  | PRODUCT MANAGER                                  |                          |   | OKW                      | NAC            | 07                    | 25   | 9/2 |    |
| G   |                  | INTERAGENCY REFERRAL                             |                          |   | This brand name          |                |                       |      |     |    |
| H   |                  | COST-BENEFIT REVIEW                              |                          |   | final printed label      |                |                       |      |     |    |
| I   |                  | PUBLIC COMMENTS REVIEW                           |                          |   | will be effective 7/1/92 |                |                       |      |     |    |
| J   |                  | EEE BRANCH INSECTICIDE EFFICACY                  |                          |   |                          |                |                       |      |     |    |
| K   |                  | EEE BRANCH HERBICIDE EFFICACY                    |                          |   |                          |                |                       |      |     |    |
| L   |                  | EEE BRANCH FUNGICIDE EFFICACY                    |                          |   |                          |                |                       |      |     |    |
| M   |                  | EEE BRANCH RODENTICIDE EFFICACY                  |                          |   |                          |                |                       |      |     |    |
| N   |                  | EEE BRANCH DISINFECTANT EFFICACY                 |                          |   |                          |                |                       |      |     |    |
| O   |                  | CHEMISTRY BRANCH RESIDUE CHEMISTRY               |                          |   |                          |                |                       |      |     |    |
| P   |                  | EEE BRANCH ENVIRONMENTAL CHEMISTRY               |                          |   |                          |                |                       |      |     |    |
| Q   |                  | TOXICOLOGY BRANCH HUMAN SAFETY                   |                          |   |                          |                |                       |      |     |    |
| R   |                  | EEE BRANCH ENVIRONMENTAL SAFETY                  |                          |   |                          |                |                       |      |     |    |
| S   |                  |  |                          |   |                          |                |                       |      |     |    |
| T   |                  |  |                          |   |                          |                |                       |      |     |    |
| PRODUCT MANAGER SIGNATURE   |                  |  |                          | TYPE OF RESPONSE  |                          |                |                       | CODE |     |    |
|   |                  |  |                          |   |                          |                |                       |      |     |    |

# Roundup

Herbicide by Monsanto

## Complete Directions for Use

EPA Reg. No. 524-445

AVOID CONTACT WITH FOLIAGE, GREEN STEMS, OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, SINCE SEVERE INJURY OR DESTRUCTION MAY RESULT.

® Roundup is a registered trademark of Monsanto Company.

This product has been approved for use in California except as stated otherwise on page 121.

1992-2

898.07-000.01/53

Read each of these sections of this label for essential product performance information.

### USE THESE CONVENIENT SECTION MARKERS.

TREE AND VINE CROPS

MINIMUM TILLAGE

CROPPING SYSTEMS

NONCROP USES

WEEDS CONTROLLED

MIXING, ADDITIVES, AND APPLICATION INSTRUCTIONS

GENERAL INFORMATION

# Roundup

Herbicide by Monsanto

## Complete Directions for Use

EPA Reg. No. 524-445

AVOID CONTACT WITH FOLIAGE, GREEN STEMS, OR FRUIT OF CROPS. DESIRABLE PLANTS AND TREES, SINCE SEVERE INJURY OR DESTRUCTION MAY RESULT.

® Roundup is a registered trademark of Monsanto Company.

This product has been approved for use in California except as stated otherwise on page 121.

1992-2

89XLD7-0000.01/53

Read each of these sections of this label for essential product performance information.

USE THESE CONVENIENT SECTION MARKERS.

TREE AND VINE CROPS

MINIMUM TILLAGE

CROPPING SYSTEMS

NONCROP USES

NEEDS CONTROLLED

MIXING, ADJUSTING, AND APPLICATION INSTRUCTIONS

GENERAL INFORMATION

Read the entire label before using this product.

Use only according to label instructions.

Read "LIMIT OF WARRANTY AND LIABILITY" before buying or using. If terms are not acceptable, return of once opened.

REFORMULATION IS PROHIBITED. SEE INDIVIDUAL CONTAINER LABEL FOR REPACKAGING LIMITATIONS.

#### LIMIT OF WARRANTY AND LIABILITY

(Not applicable to consumer applications applied by the homeowner for noncommercial purposes as permitted by the supplemental labeling for one-quart containers.)

This Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

Buyer and all users shall promptly notify this Company of any claims whether based in contract, negligence, strict liability, other tort or otherwise.

Buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this Company, including, but not limited to, incompatibility with products other than those

set forth in the Directions, application to or contact with desirable vegetation, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, application in any manner not expressly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions, or the presence of products other than those set forth in the Directions in or on the soil, crop or treated vegetation.

THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE LIMIT OF THE LIABILITY OF THIS COMPANY OR ANY OTHER SELLER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT (INCLUDING CLAIMS BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE) SHALL BE THE PURCHASE PRICE PAID BY THE USER OR BUYER FOR THE QUANTITY OF THIS PRODUCT INVOLVED, OR, AT THE ELECTION OF THIS COMPANY OR ANY OTHER SELLER, THE REPLACEMENT OF SUCH QUANTITY, OR, IF NOT ACQUIRED BY PURCHASE, REPLACEMENT OF SUCH QUANTITY. IN NO EVENT SHALL THIS COMPANY OR ANY OTHER SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES.

Buyer and all users are deemed to have accepted the terms of this LIMIT OF WARRANTY AND LIABILITY which may not be varied by any verbal or written agreement.

|  |              |
|--|--------------|
| APPLICATION EQUIPMENT<br>AND TECHNIQUES                              | 16 thru 29   |
| AERIAL EQUIPMENT   | 17, 18,      |
| BROADCAST EQUIPMENT  | 19           |
| CONTROLLED DROPLET<br>APPLICATION (CDA)                              | 19, 20       |
| HAND-HELD & HIGH-VOLUME EQUIPMENT                                    | 20, 21       |
| SELECTIVE EQUIPMENT  | 21 thru 29   |
| ATTENTION — AVOID DRIFT  | 11, 12       |
| CONSERVATION TILLAGE, MINIMUM TILLAGE SYSTEMS<br>AND NO-TILL SYSTEMS |              |
| CORN AND SOYBEANS  | 101 thru 106 |
| CROPPING SYSTEMS   | 87 thru 120  |
| Alfalfa,   |              |
| Artichoke, (Jerusalem)   |              |
| Asparagus, Atemoya, Barley,  |              |
| Beans, Edible (all),   |              |
| Beet Greens, Beets (red, sugar),                                     |              |
| Berries and Small Fruit, Breadfruit                                  |              |
| Broccoli, Cabbage, Canistel  |              |
| Carambola, Carrot, Cauliflower, Celery,                              |              |
| Chicory, Corn (all), Cotton, Cucumber, Dates,                        |              |
| Eggplant, Forage Grasses,  |              |
| Forage Legumes, Garlic, Gourds, Horseradish,                         |              |
| Jackfruit, Jaboticaba, Kale, Lentils, Lettuce,                       |              |
| Logan, Lychee,   |              |
| Melons, Mustard Greens, Oats,  |              |
| Okra, Onion, Parsnips, Passion Fruit, Pastures,                      |              |
| Peanuts, Peas (all), Peppers, Persimmons,                            |              |
| Pineapple, Potato (Irish, sweet), Pumpkin,                           |              |
| Radish, Rice, Rutabagas, Sapodilla,                                  |              |
| Sapote (Black, Mamey, White), Sorghum (milo),                        |              |
| Soursop, Soybeans, Spinach,  |              |
| Squash (Summer, Winter), Sugar Apple, Sugarcane,                     |              |

|   |               |
|---|---------------|
| Tamarind, Tomatillo, Tomato, Turnip,              |               |
| Watercress, Watermelon, Wheat, Yams               |               |
| FALLOW & REDUCED TILLAGE<br>SYSTEMS               | 94 thru 98    |
| ECOFARMING  | 96, 97, 98    |
| AID TO TILLAGE                                    | 98            |
| PREHARVEST APPLICATIONS                           |               |
| COTTON  | 104, 105, 106 |
| SELECTIVE EQUIPMENT                               | 90, 91        |
| SPOT TREATMENT                                    | 90            |
| TANK MIXTURES                                     | 94 thru 106   |
| DIRECTIONS FOR USE                                | 9 thru 120    |
| ENVIRONMENTAL HAZARDS                             | 8             |
| FARMSTEAD WEED CONTROL                            | 70            |
| GENERAL INFORMATION                               | 9, 10, 11, 12 |
| INDUSTRIAL, RECREATIONAL &<br>PUBLIC AREAS        | 65, 66        |
| INGREDIENTS                                       | 8             |
| LIMIT OF WARRANTY & LIABILITY                     | 2, 3          |
| MIXING, ADDITIVES AND APPLICATION<br>INSTRUCTIONS | 12 thru 16    |
| NONCROP USES                                      | 64 thru 87    |
| BAMUAGRASS SEEDHEAD AND<br>VEGETATIVE SUPPRESSION | 86, 87        |
| COOL SEASON TURF GROWTH<br>REGULATION             | 82, 83, 84    |
| TANK MIXTURES                                     | 84, 85        |
| ORNAMENTALS AND CHRISTMAS TREES                   | 70, 71        |
| RELEASE OF BERMUDAGRASS OR<br>BAMUAGRASS          | 76 thru 82    |
| CUT STUMP TREATMENTS                              | 72            |
| INJECTION & FRILL APPLICATIONS                    | 72, 73        |
| TANK MIXTURES                                     |               |
| INDUSTRIAL SITES                                  | 66, 67        |

|   |                                     |
|---|-------------------------------------|
| MONOCROP SITES                                      | 68, 69                              |
| TERRACASSES & GRASSES FOR                           |                                     |
| SEED PRODUCTION                                     | 74, 75, 76                          |
| COOL SEASON TURF GROWTH                             |                                     |
| REGULATION  | 82 thru 85                          |
| TREE & VINE CROPS                                   | 106, 107, 108                       |
| MIDDLE MANAGEMENT                                   | 109, 109, 110                       |
| STRIPS  | 110, 111, 112, 113                  |
| ORCHARD FLOORS                                      | 114 thru 118                        |
| FREE CROPS—   |                                     |
| Acerola, Almond, Apple, Atemoya,                    |                                     |
| Apricot, Avocado, Banana, (Plantains), Breadfruit,  |                                     |
| Canistel, Carambola, Cherry, Citron, Coffee, Dates, |                                     |
| Figs, Fibbert, Grapefruit, Guava, Jaboticaba,       |                                     |
| Jackfruit, Kumquat, Lemon, Lime, Langan,            |                                     |
| Lychre, Macadamia, Mango, Nectarine, Olives,        |                                     |
| Orange, Papaya, Passionfruit, Peach, Pear, Pecan,   |                                     |
| Perseumora, Pistachia, Plum/Prune, Sapadilla,       |                                     |
| Sapote, Soursoy, Sugar Apple, Tamarind, Tangelo,    |                                     |
| Tangerine, Teas, Tropical Fruit, Walnut             | 118, 119                            |
| VINE CROPS—   |                                     |
| Kiwi Fruit, Grapes,                                 |                                     |
| (Table, Wine or Raisin)                             | 120                                 |
| PRECAUTIONARY STATEMENTS                            | 7, 8                                |
| STORAGE AND DISPOSAL                                | 9                                   |
| DRINK MIXTURES                                      | 13, 14, 37, 38, 39, 43 thru 52,     |
|   | 66 thru 69, 82 thru 85, 94 thru 96, |
|   | 98 thru 108, 110 thru 119           |
| WEEDS CONTROLLED                                    |                                     |
| ANNUAL  | 30 thru 40                          |
| PERENNIAL   | 40 thru 57                          |
| WOODY BRUSH AND TREES                               | 57 thru 64                          |

#### PRECAUTIONARY STATEMENTS

##### Hazards to

##### Humans and Domestic Animals

Keep out of reach of children.

### WARNING!

CAUSES SUBSTANTIAL BUT  
TEMPORARY EYE INJURY.

HARMFUL IF INHALED.

Do not get in eyes or breathe spray mist or  
get in or on clothing.

Wear goggles, face shield or safety  
glasses.

Wash thoroughly with soap and water  
after handling.

Remove contaminated clothing and wash  
before reuse.

FIRST AID: IF IN EYES, hold eyelids open and flush  
with plenty of water. Get medical attention.

IF INHALED, remove victim to fresh air. If not breath-  
ing, give artificial respiration, preferably mouth-to-  
mouth. Get medical attention.

IF SWALLOWED, drink promptly a large quantity of  
milk, egg whites, or gelatin solution. If these are not  
available drink large quantities of water. Get medical  
attention.

In case of an emergency involving this product, Call  
Collect, day or night, (314) 694-4000.

### Environmental Hazards

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

### Physical or Chemical Hazards

Spray solutions of this product should be mixed, stored and applied using only stainless steel, aluminum, fiberglass, plastic or plastic-lined steel containers.

**DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS.** This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

#### ACTIVE INGREDIENT:

\*Glyphosate, N-(phosphonomethyl)  
glycine, in the form of its

isopropylamine salt ..... 41.0%

INERT INGREDIENTS: ..... 59.0%

100.0%

\*Contains 480 grams per litre or 4 pounds per U.S. gallon of the active ingredient, glyphosate, in the form of its isopropylamine salt. Equivalent to 356 grams per litre or 3 pounds per U.S. gallon of the acid, glyphosate.

### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

#### Storage and Disposal

Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

See container label for STORAGE AND DISPOSAL instructions.

### GENERAL INFORMATION

**DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT EXCEPT UNDER CONDITIONS AS SPECIFIED WITHIN THIS LABEL.**

This product, a water soluble liquid, mixes readily with water to be applied as a foliar spray for the control or destruction of most herbaceous plants. It may be applied through most standard industrial or field-type sprayers after dilution and thorough mixing with water in accordance with label instructions.

This product moves through the plant from the point of foliage contact to and into the root system. Visible effects on most annual weeds occur within 2 to 4 days, but on most perennial weeds may not occur for 7 days or more. Extremely cool or cloudy weather following treatment may slow activity of this product and delay visual effects of control. Visible effects are a gradual wilting and yellowing of the plant which advances to complete browning of aboveground growth and deterioration of underground plant parts.



Unless otherwise specified on this label, delay application until vegetation has emerged and reached the stages described for control of such vegetation under the "Weeds Controlled" section of this label. Unemerged plants arising from unattached underground rhizomes or root stocks of perennials will not be affected by the herbicide and will continue to grow. For this reason, best control of most perennial weeds is obtained when treatment is made at late growth stages approaching maturity.

Always use the higher rate of this product per acre within the recommended range when (1) weed growth is heavy or dense, or (2) weeds are growing in an undisturbed (noncultivated) area.

Do not treat weeds under poor growing conditions such as drought stress, disease or insect damage, as reduced weed control may result. Reduced results may also occur when treating weeds heavily covered with dust.

Reduced control may result when applications are made to annual or perennial weeds that have been mowed, grazed, or cut, and have not been allowed to regrow to the recommended stage for treatment.

Rainfall or irrigation occurring within 6 hours after application may reduce effectiveness. Heavy rainfall or irrigation within 2 hours after application may wash the chemical off the foliage and a repeat treatment may be required.

This product does not provide residual weed control. For subsequent residual weed control, follow a label-approved herbicide program. Read and carefully observe

the cautionary statements and all other information appearing on the labels of all herbicides used.

Buyer and all users are responsible for all loss or damage in connection with the use or handling of mixtures of this product with herbicides or other materials that are not expressly recommended in this labeling. Mixing this product with herbicides or other materials not recommended on this label may result in reduced performance.

For best results, spray coverage should be uniform and complete. Do not spray weed foliage to the point of runoff.

Keep people and pets off treated areas until spray solution has dried.

**DOMESTIC ANIMALS:** This product is considered to be relatively nontoxic to dogs and other domestic animals; however, ingestion of this product or large amounts of freshly sprayed vegetation may result in temporary gastrointestinal irritation (vomiting, diarrhea, colic, etc.). If such symptoms are observed, provide the animal with plenty of fluids to prevent dehydration. Call a veterinarian if symptoms persist for more than 24 hours.

#### ATTENTION

**AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS.**

Do not allow the herbicide solution to mist, drip, drift, or splash onto desirable vegetation since minute quantities of this product can cause severe damage or destruction to the crop, plants, or other areas on which

treatment was not intended. The likelihood of injury occurring from the use of this product is greatest when winds are gusty or in excess of 5 miles per hour or when other conditions, including lesser wind velocities, will allow spray drift to occur. When spraying, avoid combinations of pressure and nozzle type that will result in splatter or fine particles (mist) which are likely to drift. AVOID APPLYING AT EXCESSIVE SPEED OR PRESSURE.

NOTE: Use of this product in any manner not consistent with this label may result in injury to persons, animals or crops, or other unintended consequences. Keep container closed to prevent spills and contamination.

### MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS

APPLY THESE SPRAY SOLUTIONS IN PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING DESIRED VOLUMES. DO NOT APPLY WHEN WIND OR OTHER CONDITIONS FAVOR DRIFT. HAND GUN APPLICATIONS SHOULD BE PROPERLY DIRECTED TO AVOID SPRAYING DESIRABLE PLANTS. NOTE: REDUCED RESULTS MAY OCCUR IF WATER CONTAINING SOIL IS USED, SUCH AS WATER FROM PONDS AND UNLINED DITCHES.

#### MIXING

This product mixes readily with water. Mix spray solutions of this product as follows: Fill the mixing or spray tank with the required amount of water. Add the recom-

mended amount of this product (see the "Directions for Use" and "Weeds Controlled" sections of this label) near the end of the filling process and mix well. Remove hose from tank immediately after filling to avoid siphoning back into the carrier source. During mixing and application, foaming of the spray solution may occur. To prevent or minimize foam, avoid the use of mechanical agitators, terminate by-pass and return lines at the bottom of the tank and, if needed, use an approved anti-foam or defoaming agent.

#### TANK MIXTURES

Always predetermine the compatibility of labeled tank mixtures of this product with water carrier by mixing small proportional quantities in advance.

Mix labeled tank mixtures of this product with water as follows:

1. Place a 20 to 35 mesh screen or wetting basket over filling port.
2. Through the screen, fill the sprayer tank one half full with water and start agitation.
3. If a wettable powder is used, make a slurry with the water carrier, and add it SLOWLY through the screen into the tank. Continue agitation.
4. If a flowable formulation is used, premix one part flowable with one part water. Add diluted mixture SLOWLY through the screen into the tank. Continue agitation.

5. If an emulsifiable concentrate formulation is used, premix one part emulsifiable concentrate with two parts water. Add diluted mixture slowly through the screen into the tank. Continue agitation.
6. Continue filling the sprayer tank with water and add the required amount of this product near the end of the filling process.
7. Where nonionic surfactant is recommended, add this to the spray tank before completing the filling process.
8. Add individual formulations to the spray tank as follows: wettable powder, flowable, emulsifiable concentrate, drift control additive, water soluble liquid followed by surfactant.

Maintain good agitation at all times until the contents of the tank are sprayed. If the spray mixture is allowed to settle, thorough agitation is required to resuspend the mixture before spraying is resumed.

Keep lips open on or near bottom of tank to minimize foaming. Screen size in nozzle or fine strainers should be no finer than 50 mesh. Carefully select proper nozzle to avoid spraying a fine mist. For best results with conventional ground applications equipment, use flat fan nozzles.

Clean sprayer and parts immediately after using this product by thoroughly flushing with water.

## ADDITIVES

### SURFACTANTS

Nonionic surfactants which are labeled for use with herbicides may be used. Do not reduce rates of this product when adding surfactant. When adding additional surfactant, use 0.5 percent surfactant concentration (2 quarts per 100 gallons of spray solution) when using surfactants which contain at least 70 percent active ingredient or a 1 percent surfactant concentration (4 quarts per 100 gallons of spray solution) for those surfactants containing less than 70 percent active ingredient. Read and carefully observe surfactant cautionary statements and other information appearing on the surfactant label.

### AMMONIUM SULFATE

The addition of 1 to 2 percent dry ammonium sulfate by weight or 8.5 to 17 pounds per 100 gallons of water may increase the performance of this product, and this product plus 2,4-D, Banvel™ or residual herbicide tank mixtures on annual and perennial weeds. The improvement in performance may be apparent where environmental stress is a concern. Low quality ammonium sulfate may contain material that will not readily dissolve which could result in nozzle tip plugging. To determine quality, perform a jar test by adding ¼ cup of ammonium sulfate to 1 gallon of water and agitate for 1 minute. If undissolved sediment is observed, predissolve the ammonium sulfate in water and filter prior to addition to the spray tank. If ammonium sulfate is added directly to the spray tank, add slowly with agitation. Adding too

quickly may clog outlet line. Ensure that ammonium sulfate is completely dissolved in the spray tank before adding herbicides or surfactant. Thoroughly rinse the spray system with clean water after use to reduce corrosion.

**NOTE:** The use of ammonium sulfate as an additive does not preclude the need for additional surfactant. Do not use herbicide rates lower than recommended in this label.

\*Sumex is a trademark of Sumco, Inc.

### COLORANTS OR DYES

Agriculturally approved colorants or marking dyes may be added to this product. Colorants or dyes used in spray solutions of this product may reduce performance, especially at lower rates or dilutions. Use colorants or dyes according to the manufacturer's recommendations.

### APPLICATION EQUIPMENT AND TECHNIQUES

Do not apply this product through any type of irrigation system.

This product may be applied with the following application equipment:

Aerial—Fixed Wing and Helicopter  
Broadcast Spray

Controlled Droplet Applicator (CDA)—Hand-held or boom-mounted applicators which produce a spray consisting of a narrow range of droplet sizes.

Hand-Held and High-Volume Spray Equipment—Knapsack and backpack sprayers, pump-up pressure sprayers, handguns, handwands, lances and other hand-held spray equipment used to direct the spray onto weed foliage and vehicle-mounted high-volume spray equipment for spray-to-wet applications.

Selective equipment—Recirculating sprayers, shielded sprayers and wiper applicators.

See the appropriate part of this section for specific rates of application and instructions.

#### AERIAL EQUIPMENT

Use the recommended rates of this herbicide in 3 to 15 gallons of water per acre unless otherwise specified on this label. See the "Weeds Controlled" section of this label for specific rates. Unless otherwise specified, do not exceed one quart per acre. (Aerial applications of this product may be made in annual cropping conventional tillage systems, fallow and reduced tillage systems, pre-harvest, silvicultural sites, and rights-of-way. Refer to the individual use area sections of this label for recommended volumes and application rates.) FOR AERIAL APPLICATION IN CALIFORNIA, REFER TO THE FEDERAL SUPPLEMENTAL LABEL FOR AERIAL APPLICATIONS IN THAT STATE FOR SPECIFIC INSTRUCTIONS, RESTRICTIONS AND REQUIREMENTS.

This product plus Dust tank mixtures may not be applied by air in California.

Avoid direct application to any body of water.

**AVOID DRIFT**—DO NOT APPLY DURING INVERSION CONDITIONS, WHEN WINDS ARE GUSTY, OR UNDER ANY OTHER CONDITION WHICH FAVORS DRIFT. DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

Coarse sprays are less likely to drift; therefore, do not use nozzles or nozzle configurations which dispense spray as fine spray droplets. Do not angle nozzles forward into the airstream and do not increase spray volume by increasing nozzle pressure.

Drift control additives may be used. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label.

Ensure uniform application—To avoid streaked, uneven or overlapped application, use appropriate marking devices.

Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove residues of this product accumulated during spraying or leak spills. PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART. LANDING GEAR ARE MOST SUSCEPTIBLE. The maintenance of an organic coating (paint) which meets aerospace specification MIL-C-38413 may prevent corrosion.

#### ■ BROADCAST EQUIPMENT ■

For control of annual or perennial weeds listed on this label using broadcast equipment—Use the recommended rates of this product in 3 to 40 gallons of water per acre as a broadcast spray unless otherwise specified on this label. See the "Weeds Controlled" section of this label for specific rates. As density of weeds increases, spray volume should be increased within the recommended range to ensure complete coverage. Carefully select proper nozzle to avoid spraying a fine mist. For best results with ground application equipment, use flat fan nozzles. Check for even distribution of spray droplets.

#### ■ CONTROLLED DROPLET APPLICATION (CDA) ■

The rate of this product applied per acre by vehicle mounted CDA equipment must not be less than the amount recommended in this label when applied by conventional broadcast equipment. For vehicle-mounted CDA equipment, apply 3 to 15 gallons of water per acre.

For the control of labeled annual weeds with hand-held CDA units, apply a 20 percent solution of this product at a flow rate of 2 fluid ounces per minute and a walking speed of 1.5 MPH (1 quart per acre). For the control of labeled perennial weeds, apply a 20 to 40 percent solution of this product at a flow rate of 2 fluid ounces per minute and a walking speed of 0.75 MPH (2 to 4 quarts per acre).

Controlled droplet application equipment produces a spray pattern which is not easily visible. Extreme care

must be exercised to avoid spray or drift contacting the foliage or any other green tissue of desirable vegetation, as damage or destruction may result.

### ■ HAND-HELD and HIGH-VOLUME EQUIPMENT ■

Use coarse sprays only.

Mix this product in clean water and apply to foliage of vegetation to be controlled. For applications made on a spray-to-wet basis, spray coverage should be uniform and complete. Do not spray to the point of runoff.

For control of annual weeds listed on this label, apply a 0.5 percent solution of this product plus nonionic surfactant to weeds less than 6 inches in height or runner length. Apply prior to seedhead formation in grass or bud formation in broadleaf weeds. Allow three or more days before tillage or mowing.

For annual weeds over 6 inches tall, or when not using additional surfactant, or unless otherwise specified, use a 1 percent solution. For best results, use a 2 percent solution on harder-to-control perennials, such as bermudagrass, dock, field bindweed, hemp dogbane, milkweed and Canada thistle.

Less than complete coverage of weeds may result from the use of spray equipment designed for meterized spot treatments. Where less than complete coverage of annual weeds occurs, use a 5 percent solution. Do not reduce recommended concentrations of this product when adding surfactant.

Prepare the desired volume of spray solution by mixing the amount of this product in water as shown in the following table:

#### Spray Solution

| DESIRED<br>VOLUME | AMOUNT OF ROUNDUP® |          |           |          |          |
|-------------------|--------------------|----------|-----------|----------|----------|
|                   | 4%                 | 1%       | 1 1/2%    | 2%       | 5%       |
| 1 gallon          | 4 oz               | 1 1/4 oz | 2 oz      | 2 1/2 oz | 6 1/2 oz |
| 25 gallons        | 1 pt               | 1 qt     | 1 1/2 qt  | 2 qt     | 5 qt     |
| 100 gallons       | 2 qt               | 1 gal    | 1 1/2 gal | 2 gal    | 5 gal    |

2 tablespoons = 1 fluid ounce

For use in knapsack sprayers, it is suggested that the proper amount of this product be mixed with water in a larger container. Fill sprayer with the mixed solution.

For hand-held WIPER APPLICATORS, see the "Selective Equipment" section and for hand-held CONTROLLED DROPLET APPLICATORS, see the "Controlled Droplet Application (CDA)" section of this label.

### ■ SELECTIVE EQUIPMENT ■

This product may be applied through a recirculating spray system, a shielded applicator, or a wiper applicator after dilution and thorough mixing with water to treat weeds growing in any noncrop site specified on this label and only when specifically recommended in cropping systems.

A recirculating spray system directs the spray solution onto weeds growing above desirable vegetation, while

spray solution not intercepted by weeds is collected and returned to the spray tank for reuse.

A shielded applicator directs the herbicide solution onto weeds while shielding desirable vegetation from the herbicide.

A wiper applicator applies the herbicide solution onto weeds by rubbing the weed with an absorbent material containing the herbicide solution.

#### AVOID CONTACT WITH DESIRABLE VEGETATION.

Contact of the herbicide solution with the desirable vegetation may result in damage or destruction. Applicators used above desired vegetation should be adjusted so that the lowest spray stream or wiper contact point is at least two inches above the desirable vegetation. Droplets, mist, foam, or splatter of the herbicide solution settling on desirable vegetation may result in discoloration, stunting, or destruction.

Applications made above the crops should be made when the weeds are a minimum of 6 inches above the desirable vegetation. Better results may be obtained when more of the weed is exposed to the herbicide solution. Weeds not contacted by the herbicide solution will not be affected. This may occur in dense clumps, severe infestations, or when the height of the weeds varies so that not all weeds are contacted. In these instances, repeat treatment may be necessary.

See the "Weeds Controlled" section of this label for recommended stage of growth for specific weeds.

#### NOTE

- Maintain equipment in good operating condition. Avoid leakage or dripping onto desirable vegetation.
- Adjust height of applicator to insure adequate contact with weeds.
- Keep nozzle tips and wiping surfaces clean.
- Keep spray patterns aligned into recovery chamber of the recirculating sprayer.
- Keep shields on shielded applicators adjusted to protect desirable vegetation.
- Maintain recommended roller RPM on roller applicators while in use.
- Keep wiper material at proper degree of saturation with herbicide solution.
- DO NOT use wiper equipment when weeds are wet.
- DO NOT operate equipment at ground speeds greater than 5 mph. Weed control may be affected by speed of application equipment. As weed density increases, reduce equipment ground speed to ensure good coverage of weeds.
- Be aware that, on sloping ground, the herbicide solution may migrate, causing dripping on the lower end and drying on the upper end of a wiper applicator.
- Variation in equipment design may affect weed control. With wiper applicators, the wiping material and its orientation must allow delivery of sufficient quantities of the recommended herbicide solution directly to the weed.

- Care must be taken with all types of wipers to ensure that the absorbent material does not become over-saturated, causing the herbicide to drip on desirable vegetation.
- Mix only the amount of solution to be used during a one-day period, as reduced activity may result from use of leftover solutions. With all equipment, drain and clean sprayer and wiper parts immediately after using this product by thoroughly flushing with water.

#### RECIRCULATING SPRAYERS

Recirculating sprayer calibration is made on the basis of ground speed and delivery volume. Two procedures can be used to calibrate: (1) determine the discharge being delivered per minute, then operate at the designated ground speed, or (2) select the desired ground speed and then adjust the sprayer to deliver the recommended volume per minute (this may require nozzle changes). Use the appropriate table below.

Do not operate at nozzle pressure above 20 PSI

Table 1. Use this table when calibrating box or row-type recirculating sprayers. Box or row-type sprayer calibration is based on the total discharge collected per row. Use only straight stream or 15° fan-type nozzles.

\*VOLUME PER MINUTE PER ROW

| MPH | Fluid Ounces |
|-----|--------------|
| 2   | 26 to 35     |
| 3   | 38 to 51     |
| 4   | 51 to 68     |
| 5   | 65 to 88     |

\*NOTE: Be certain the amount collected is for all spray streams treating one row.

Table 2. Use this table when calibrating broadcast type recirculating sprayers. Broadcast recirculating sprayer calibration is based on the discharge collected per minute from one nozzle on a 20-inch spacing.

VOLUME PER MINUTE PER NOZZLE

| MPH | Fluid Ounces |
|-----|--------------|
| 2   | 7 to 9       |
| 3   | 10 to 13     |
| 4   | 13 to 18     |
| 5   | 16 to 22     |

When applied as recommended under the conditions described for recirculating sprayers, this product will control the following weeds growing a minimum of 6 inches above desirable vegetation.

**Perennial Broadleaf Weeds**—To SUPPRESS the following weeds, mix in a ratio of 4 quarts of this product in 20 gallons of water and apply as directed.



Dogbane, hemp      Milflower  
*Apocynum cannabinum*      *Asclepias syriaca*

**Perennial Grasses and Annual Broadleaf Weeds**—To control the following weeds, mix in a ratio of 3 quarts of this product in 20 gallons of water and apply as directed:

Cocklebur      Pigweed, redroot  
*Xanthium*      *Amaranthus*  
*strumarium*      *retrofractus*

Johnsongrass      Sunflower  
*Sorghum halepense*      *Helianthus annuus*

**Annual Grasses**—To control the following weeds, mix in a ratio of 2 quarts of this product in 20 gallons of water and apply as directed:

Corn      Shattercane  
*Zea mays*      *Sorghum bicolor*

#### SHIELDED APPLICATORS

When applied as directed under conditions described for shielded applicators, this product will control those weeds listed in the "Weeds Controlled" section of this label.

Shielded applicators which apply the herbicide solution in a spray band should be calibrated on a broadcast equivalent rate and volume basis. To determine these:

$$\begin{array}{rcl} \text{Band width} & & \text{Herbicide} \\ \text{in inches} & \times & \text{Broadcast} \\ & & \text{RATE} \\ \hline \text{Row width} & & \\ \text{in inches} & & \text{per acre} \end{array} = \begin{array}{rcl} \text{Herbicide} & & \\ & & \text{Band RATE} \\ & & \text{per acre} \end{array}$$

$$\begin{array}{rcl} \text{Band width} & & \text{Broadcast} \\ \text{in inches} & \times & \text{VOLUME of} \\ & & \text{solution} \\ \hline \text{Row width} & & \\ \text{in inches} & & \text{per acre} \end{array} = \begin{array}{rcl} \text{Band} & & \\ & & \text{VOLUME} \\ & & \text{of solution} \\ & & \text{per acre} \end{array}$$

Use nozzles that provide uniform coverage within the treated area. **EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT WITH DESIRABLE VEGETATION.**

For specific rates of application and instructions for control of various annual and perennial weeds, see the "Weeds Controlled" section of this label.

#### WIPER APPLICATORS

Wiper applicators include either roller or wick devices which physically wipe appropriate concentrations or amounts of this product directly onto the weed. Equipment must be designed, maintained, and operated to prevent the herbicide solution from contacting desirable vegetation. Operate this equipment at ground speeds no greater than 5 mph. Performance may be improved by reducing speed in areas of heavy weed infestations to ensure adequate wiper saturation. Better results may be obtained if two applications are made in opposite directions.

Do not add surfactant to the herbicide solution.

**For Roller Applicators**—Mix 1 gallon of this product in enough water to prepare 10 gallons of herbicide solution (10 percent solution). Apply this solution to perennial weeds or annual broadleaf weeds listed in this "Wiper Applicators" section.

Mix 1 gallon of this product in enough water to provide 20 gallons of herbicide solution (5 percent solution). Apply this solution to annual grasses listed in this "Wiper Applicators" section.

Roller speed should be maintained at 40 to 60 RPM.

For Wick or Wiper Applicators - Mix 1 gallon of this product in 2 gallons of water to prepare a 33 percent solution. Apply this solution to weeds listed in this "Wiper Applicators" section.

In severe infestations, reduce equipment ground speed to ensure that adequate amounts of this product are wiped on the weeds. A second treatment in the opposite direction may be beneficial.

Do not permit herbicide solution to contact desirable vegetation.

When applied as recommended under the conditions described for "Wiper Applicators", this product **CONTROLS** the following weeds:

#### **ANNUAL GRASSES**

|                        |                        |
|------------------------|------------------------|
| Corn                   | Rye, common            |
| <i>Zea mays</i>        | <i>Secale cereale</i>  |
| Panicum, Texas         | Shattercane            |
| <i>Panicum texanum</i> | <i>Sorghum bicolor</i> |

#### **ANNUAL BROADLEAVES**

|                           |                       |
|---------------------------|-----------------------|
| Sicklepod                 | Stinkweed, bristly    |
| <i>Cassia obtusifolia</i> | <i>Acanthospermum</i> |
| Spanishneedles            | <i>hispidum</i>       |
| <i>Bidens bipinnata</i>   |                       |

When applied as recommended under the conditions described for "Wiper Applicators", this product **SUPPRESSES** the following weeds:

#### **ANNUAL BROADLEAVES**

|                                |                             |
|--------------------------------|-----------------------------|
| Beggarweed, Florida            | Ragweed, giant              |
| <i>Desmodium</i>               | <i>Ambrosia trifida</i>     |
| <i>torrisonum</i>              | Sunflower                   |
| Dogfennel                      | <i>Helianthus annuus</i>    |
| <i>Eupatorium</i>              | Thistle, musk               |
| <i>capillitium</i>             | <i>Carduus nutans</i>       |
| Pigweed, redroot               | Vickiweed                   |
| <i>Amaranthus</i>              | <i>Achillea theophrasti</i> |
| <i>retrofractus</i>            |                             |
| Ragweed, common                |                             |
| <i>Ambrosia artemisiifolia</i> |                             |

#### **PERENNIAL GRASSES**

|                          |                                 |
|--------------------------|---------------------------------|
| Bermudagrass             | Smartgrass                      |
| <i>Cynodon dactylon</i>  | <i>Sparganium angustifolium</i> |
| Guineagrass              | Vaseygrass                      |
| <i>Panicum maximum</i>   | <i>Paspalum urvillei</i>        |
| Johnsongrass             |                                 |
| <i>Sorghum halepense</i> |                                 |

#### **PERENNIAL BROADLEAVES**

|                            |                               |
|----------------------------|-------------------------------|
| Dogbane, hemp              | Nightshade, silverleaf        |
| <i>Apocynum cannabinum</i> | <i>Solanum elaeagnifolium</i> |
| Milkweed                   | Thistle, Canada               |
| <i>Asclepias syriaca</i>   | <i>Cirsium arvense</i>        |

## WEEDS CONTROLLED

This herbicide controls many annual and perennial grasses and broadleaf weeds.

### ANNUAL WEEDS

- Apply to actively growing grass and broadleaf weeds.
- Allow at least 3 days after treatment before tillage.
- For maximum agronomic benefit, apply when weeds are 6 inches or less in height.
- To prevent seed production, applications should be made prior to seedhead formation.
- This product does not provide residual control; therefore, delay application until maximum weed emergence. Repeat treatments may be necessary to control later germinating weeds.

### LOW-VOLUME BROADCAST APPLICATION (LOW-RATE TECHNOLOGY)

When applied as directed under the conditions described, this product will control the weeds listed below when:

1. Water carrier volumes of 3 to 10 gallons per acre for ground applications and 3 to 5 gallons per acre for aerial applications are recommended. (See the "Aerial Application" section of this label for approved sites.)

2. A nonionic surfactant is added at 0.5 to 1 percent by total spray volume. Use 0.5 percent surfactant concentration when using surfactants which contain at least 70 percent active ingredient or a 1 percent surfactant concentration for those surfactants containing less than 70 percent active ingredient.

### NOTE

- The addition of 2 percent dry ammonium sulfate by weight or 17 pounds per 100 gallons of water may increase the performance of this product on annual weeds. The improvement in performance may be apparent where environmental stress is a concern. Refer to the "Mixing, Additives and Application Instructions" section of this label.
- Do not tank-mix with soil residual herbicides when using these rates unless otherwise specified.
- For weeds that have been mowed, grazed, or cut, allow regrowth to occur prior to treatment.
- Refer to the "Tank Mixtures" portion of this section for control of additional broadleaf weeds.

| WEED SPECIES                                     | MAXIMUM<br>HEIGHT/<br>LENGTH | RATE<br>PER<br>ACRE**<br>(FLUID<br>OUNCES)           |
|--|------------------------------|--|
| Forb<br><i>Setaria spp.</i>                      | 12"                          | 8 oz.  |
| Barnyardgrass<br><i>Echinochloa crus-galli</i>   | 6"<br>(3 to 4"<br>(4 to 6"   | 12 oz.<br>16 oz. <sup>1</sup><br>24 oz. <sup>1</sup> |
| Bluegrass, annual<br><i>Poa annua</i>            |                              |  |
| Brume, downy<br><i>Bromus pinnatus</i>           |                              |  |
| Mustard, blue<br><i>Chorispora tenella</i>       |                              |  |
| Mustard, leafy<br><i>Descurainia pinnata</i>     |                              |  |
| Mustard, tumble<br><i>Sisymbrium officinalis</i> |                              |  |
| Mustard, wild<br><i>Sinapis arvensis</i>         |                              |  |
| Spurry, umbrella<br><i>Holosteum umbellatum</i>  |                              |  |
| Barley<br><i>Hordeum vulgare</i>                 | 12"                          |  |

|  |     |        |
|--|-----|--------|
| Ory<br><i>Secale cereale</i>                     |     |        |
| Sandbar, field<br><i>Genchius spp.</i>           |     |        |
| Shattercane<br><i>Sorghum bicolor</i>            |     |        |
| Stinkgrass<br><i>Eragrostis cilianensis</i>      |     |        |
| Wheat<br><i>Triticum aestivum</i>                | 18" |        |
| Morningglory<br><i>Ipomoea spp.</i>              | 2"  | 16 oz. |
| Sicklepod<br><i>Cassia obtusifolia</i>           |     |        |
| Bluegrass, bulbous<br><i>Poa bulbosa</i>         | 6"  |        |
| Cereal<br><i>Bromus secalinus</i>                |     |        |
| Chickweed, common<br><i>Stellaria media</i>      |     |        |
| Chickweed, meadow<br><i>Cerastium vulgatum</i>   |     |        |
| Corn<br><i>Zea mays</i>                          |     |        |
| Goatgrass, jointed<br><i>Aegilops cylindrica</i> |     |        |

| WEED SPECIES   | MAXIMUM<br>HEIGHT/<br>LENGTH | RATE<br>PER<br>ACRE**<br>(FLUID<br>OUNCES) |
|--|------------------------------|--|
| Groundsel, common<br><i>Senecio vulgaris</i>           | 6"                           | 16 oz.                                     |
| Horseweed/Marestail<br><i>Conyza canadensis</i>        |                              |  |
| Lambsquarters, common<br><i>Chenopodium album</i>      |                              |  |
| Pennycress, field<br>Fanweed<br><i>Thlaspi arvense</i> |                              |  |
| Rocket, London<br><i>Sisymbrium irio</i>               |                              |  |
| Ryegrass, Italian<br><i>Lolium multiflorum</i>         |                              |  |
| Shepherdspurse<br><i>Capsella bursa-pastoris</i>       |                              |  |
| Spurge, annual<br><i>Euphorbia</i> spp.                |                              |  |
| Buttercup<br><i>Ranunculus</i> spp.                    | 12"                          |  |
| Cocklebur<br><i>Xanthium strumarium</i>                |                              |  |

|   |         |        |
|---|---------|--------|
| Crabgrass<br><i>Digitaria</i> spp.                      |         |        |
| Dwarf dandelion<br><i>Rigida cespitosa</i>              |         |        |
| Falsesax, smallseed<br><i>Camelina microcarpa</i>       |         |        |
| Foutail, Carolina<br><i>Alopecurus carolinianus</i>     |         |        |
| Johnsongrass, seedling<br><i>Sorghum halepense</i>      |         |        |
| Oats, wild<br><i>Avena fatua</i>                        |         |        |
| Panicum, fall<br><i>Panicum dichotomiflorum</i>         |         |        |
| Panicum, Texas<br><i>Panicum texanum</i>                |         |        |
| Pigweed, redroot<br><i>Amaranthus retroflexus</i>       |         |        |
| Pigweed, smooth<br><i>Amaranthus hybridus</i>           |         |        |
| Witchgrass<br><i>Panicum capillare</i>                  |         |        |
| Sicklepod<br><i>Cassia obtusifolia</i>                  | 3 to 4" | 24 oz. |
| Signalgrass, broadleaf<br><i>Brachiaria platyphylla</i> | 4"      |        |

| WEED SPECIES  | MAXIMUM<br>HEIGHT/<br>LENGTH | RATE<br>PER<br>ACRE**<br>(FLUID<br>OUNCES) |
|---|------------------------------|--|
| Horsetail/ Maretail<br><i>Equisetum arvense</i>         | 7 to 12"                     | 24 oz.                                     |
| Lambquarters, common<br><i>Chenopodium album</i>        |                              |  |
| Spurge, annual<br><i>Euphorbia</i> spp.                 |                              |  |
| Rice, red<br><i>Oryza sativa</i>                        | 4"                           | 32 oz.                                     |
| Texweed<br><i>Sida spinosa</i>                          |                              |  |
| Sprangletop<br><i>Leptochloa</i> spp.                   | 6"                           |  |
| Geranium, Carolina<br><i>Geranium carolinianum</i>      | 12"                          |  |
| Goosegrass<br><i>Elyusine indica</i>                    |                              |  |
| Primrose, cutleaf evening<br><i>Oenothera laciniale</i> |                              |  |
| Pursley, Florida<br><i>Richardia scabra</i>             |                              |  |

|   |          |        |
|---|----------|--------|
| Sicklepod<br><i>Cassia eschscholzie</i>   | 5 to 12" |        |
| Spanishneedles<br><i>Bidens bipinnata</i> |          |        |
| Flame<br><i>Erodium</i> spp.              | 12"      | 48 oz. |
| Sprangletop<br><i>Leptochloa</i> spp.     |          |        |

\*Use these rates to control barnyardgrass in Alabama, Arkansas, Mississippi, Missouri, Louisiana and Texas for preplant treatments.

\*\*For control in no-till systems, use 16 fluid ounces per acre.

\*\*For those rates less than 32 fluid ounces per acre, this product at rates up to 32 fluid ounces per acre may be used where heavy weed densities exist.

#### TANK MIXTURES

ROUNDUP® plus BANVEL  
plus NONIONIC SURFACTANT

ROUNDUP plus 2,4-D  
plus NONIONIC SURFACTANT

DO NOT APPLY BANVEL OR 2,4-D TANK MIXTURES BY AIR IN CALIFORNIA.

These tank mixtures are recommended for use in no-till and reduced tillage areas only. Follow use directions as

given in the "Low-Volume Broadcast Application" section.

This product plus Banvel or 2,4-D will control the annual grasses and broadleaf weeds previously listed for this product alone at the indicated heights (except 8 fluid ounces per acre applications), plus the following broadleaf weeds. For those weeds previously listed at 8 fluid ounces of this product alone per acre, use 12 fluid ounces in these tank mixtures.

NOTE: Refer to the specific product labels for crop rotation restrictions and cautionary statements of all products used in tank mixtures. Some crop injury may occur if Banvel is applied within 45 days of planting. The addition of Banvel in a mixture with this product may provide short-term residual control of selected weed species.

Apply 12 to 16 fluid ounces of this product plus 0.25 lb. a.i. of Banvel or 0.5 pound a.i. of 2,4-D, plus 0.5 to 1 percent nonionic surfactant by total spray volume per acre to control dense populations of the following annual broadleaf weeds when less than the height indicated:

|                            |                                |
|----------------------------|--------------------------------|
| Cocklebur (12")            | Morningglory (6")              |
| <i>Xanthium strumarium</i> | <i>Ipomoea sp.</i>             |
| Kochia* (6")               | Pigweed, redroot (12")         |
| <i>Kochia scoparia</i>     | <i>Amaranthus retrofractus</i> |
| Lambsquarters (12")        | Pigweed, smooth (12")          |
| <i>Chenopodium album</i>   | <i>Amaranthus hybridus</i>     |
| Lettuce, prickly (6")      | Thistle, Russian (12")         |
| <i>Lactuca scariola</i>    | <i>Salsola kali</i>            |

Marestail/Horseweed (6")  
*Glycine canadensis*

\*Controlled with Banvel tank mixture only.

Apply 16 fluid ounces of this product plus 0.5 pound a.i. of 2,4-D, plus 0.5 to 1 percent nonionic surfactant by total spray volume per acre to control the following annual broadleaf weeds when less than 6 inches in height.

|                                |                                |
|--------------------------------|--------------------------------|
| Ragweed, common                | Smartweed, <i>Pterospora</i>   |
| <i>Ambrosia artemisiifolia</i> | <i>Fragaria pennsylvanicum</i> |
| Ragweed, giant                 | Yarrowleaf                     |
| <i>Ambrosia trifida</i>        | <i>Achillea theophrasti</i>    |

#### HIGH-VOLUME BROADCAST APPLICATIONS

When applied as directed under the conditions described, this product will control the weeds listed below when water carrier volumes are 10 to 40 gallons per acre for ground applications.

Apply 1 to 1.5 quarts of this product per acre plus 0.5 to 1 percent nonionic surfactant by total spray volume. Use 1 quart per acre if weeds are less than 6 inches tall and 1.5 quarts per acre if weeds are over 6 inches tall. If weeds have been mowed, grazed, or cut, allow adequate time for new growth to recommended stages prior to treatment. These rates will also provide control of weeds listed in the "Low-Volume Broadcast Application" section.

given  
section  
This p  
grass  
prodi  
cane  
leaf  
sun  
sun  
NO

## WEED SPECIES

|                     |                         |
|---------------------|-------------------------|
| Bahamapple*         | Panicum                 |
| Momordica charantia | Panicum spp.            |
| Bassia, firehook    | Ragweed, common         |
| Bassia hyssopifolia | Ambrosia artemisiifolia |
| Brome               | Ragweed, giant          |
| Bromus spp.         | Ambrosia trifida        |
| Fiddleneck          | Smartweed,              |
| Amaranthus spp.     | Pennsylvania            |
| Flaxleaf Fleabane   | Polygonum               |
| Lactuca biennis     | pennsylvanicum          |
| Fleabane            | Southwistle, annual     |
| Erigeron spp.       | Sonchus oleraceus       |
| Kochia              | Sanflower               |
| Kochia scoparia     | Helianthus annuus       |
| Lettuce, prickly    | Thistle, Russian        |
| Lactuca scariola    | Salsola kali            |
|                     | Vetivert                |
|                     | Achillea (therophract)  |

\*Apply with hand-held equipment only.

## PERENNIAL WEEDS

Apply this product as follows to control or destroy most perennial weeds:

NOTE: If weeds have been mowed or tilled, do not treat until plants have resumed active growth and have reached the recommended stages.

Repeat treatments may be necessary to control weeds regenerating from underground parts or seed. Repeat treatments must be made prior to crop emergence.

The addition of 1 to 2 percent dry ammonium sulfate by weight or 8.5 to 17 pounds per 100 gallons of water may increase the performance of this product on perennial weeds. The improvement in performance may be apparent where environmental stress is a concern. Refer to the "Mixing, Additives and Application Instructions" section of this label.

When applied as recommended under the conditions described, this product WILL CONTROL the following PERENNIAL WEEDS:

|                      |                       |
|----------------------|-----------------------|
| Alfalfa              | Kikuyugrass           |
| Medicago sativa      | Pennisetum            |
| Agave/weed*          | standicum             |
| Alternanthera        | Knapweed              |
| phaceloides          | Centaurea jacobina    |
| Artichoke, Jerusalem | Lactuca               |
| Helianthus tuberosus | capitata camera       |
| Bahiagrass           | Milkweed              |
| Paspalum notatum     | Asclepias spp.        |
| Bentgrass            | Muhly, wirestem       |
| Agrostis spp.        | Muhlenbergia frondosa |
| Bermudagrass         | Mullein, common       |
| Cynodon dactylon     | Verbascum thapsus     |
| Bermudagrass, water  | Napiergrass           |
| Paspalum             | Pennisetum purpureum  |
| Paspalum distichum   |                       |



|                             |                               |
|-----------------------------|-------------------------------|
| Bindweed, field             | Nightshade, silverleaf        |
| <i>Convolvulus arvensis</i> | <i>Solanum elaeagnifolium</i> |
| Bluegrass, Kentucky         | Nutsedge, purple, yellow      |
| <i>Poa spp.</i>             | <i>Cyperus rotundus</i>       |
| Blueweed, Texas             | <i>Cyperus esculentus</i>     |
| <i>Helianthus ciliaris</i>  | Orchardgrass                  |
| Brackenfern                 | <i>Dactylis glomerata</i>     |
| <i>Pteridium aquilinum</i>  | Pampas                        |
| Bromegrass, smooth          | <i>Cortaderia jubata</i>      |
| <i>Bromus inermis</i>       | Paragrass                     |
| Buruga, woodhyacinth        | <i>Bracharia mutica</i>       |
| <i>Fraseria corymbosa</i>   | Phragmites*                   |
| Canarygrass, seed           | <i>Phragmites</i> spp.        |
| <i>Phalaris arundinacea</i> | Quackgrass                    |
| Cattail                     | <i>Agropyron repens</i>       |
| <i>Typha</i> spp.           | Redvine*                      |
| Clover, red                 | <i>Brunaichia ovata</i>       |
| <i>Trifolium pratense</i>   | Reed, giant                   |
| Clover, white               | <i>Arundo donax</i>           |
| <i>Trifolium repens</i>     | Ryegrass, perennial           |
| Cogongrass                  | <i>Elym perenne</i>           |
| <i>Imperata cylindrica</i>  | Smartweed, swamp              |
| Dallisgrass                 | <i>Polygonum coccineum</i>    |
| <i>Paspalum dilatarum</i>   | Spurge, leafy*                |
| Dandelion                   | <i>Euphorbia esula</i>        |
| <i>Taraxacum officinale</i> | Sweet potato, wild*           |
|                             | <i>Ipomoea pandurata</i>      |

|                             |                          |
|-----------------------------|--------------------------|
| Dock, curly                 | Thistle, Canada          |
| <i>Rumex crispus</i>        | <i>Cirsium arvense</i>   |
| Dogbane, hemp               | Timothy                  |
| <i>Apocynum cannabinum</i>  | <i>Phleum pratense</i>   |
| Fescue                      | Torpedograss*            |
| <i>Festuca</i> spp.         | <i>Panicum repens</i>    |
| Fescue, tall                | Trumpet creeper*         |
| <i>Festuca arundinacea</i>  | <i>Campsis radicans</i>  |
| Guineagrass                 | Vasegrasses              |
| <i>Panicum maximum</i>      | <i>Paspalum urvillei</i> |
| Horse-nettle                | Whitegrass, western      |
| <i>Solanum carolinense</i>  | <i>Agropyron smithii</i> |
| Hornedlark                  |                          |
| <i>Armoracia rusticaria</i> |                          |
| Johnsongrass                |                          |
| <i>Sorghum halepense</i>    |                          |

\*Partial Control

This product is not registered in California for use on water bermudagrass.

See "Directions for Use" and "Mixing, Additives and Application Instructions" sections of this label for labeled uses and specific application instructions.

Alfalfa—Apply 1 quart of this product per acre plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Make application after the last hay cutting in the fall. Allow alfalfa to regrow to a height of 6 to 8 inches or more prior to treatment.

45

Applications should be followed with deep tillage at least 7 days after treatment, but before soil freeze-up.

**Alligatorweed**—Apply 4 quarts of this product per acre or apply a 1% percent solution with hand-held equipment to provide partial control. Apply when most of the plants are in bloom. Repeat applications will be required to maintain such control.

**Bentgrass**—For suppression in grass seed production areas. For ground applications only, apply 1.5 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 10 to 20 gallons of water per acre. Ensure entire crown area has resumed growth prior to a fall application. Bentgrass should be actively growing and have at least 3 inches of growth. Tillage prior to treatment should be avoided. Tillage 7 to 10 days after application is recommended for best results. Failure to use tillage after treatment may result in unacceptable control.

**Bermudagrass**—For control, apply 5 quarts of this product per acre and, for partial control, apply 3 quarts per acre. Treat when bermudagrass is actively growing and seedheads are present. Retreatment may be necessary to maintain control. Allow 7 or more days after application before tillage.

**Bermudagrass, water (lunchgrass)**—Apply 1.5 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 5 to 10 gallons of water per acre. Apply when water bermudagrass is actively growing and

12 to 18 inches in length. Allow 7 or more days before tilling, flushing or flooding the field.

**Fall applications only**—Apply 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 5 to 10 gallons of water per acre. Fallow fields should be tilled prior to application. Apply prior to frost on water bermudagrass that is actively growing and 12 to 18 inches in length. Allow 7 or more days before tillage.

**Bindweed, field**—For control, apply 4 to 5 quarts of this product per acre west of the Mississippi River and 3 to 4 quarts east of the Mississippi River. Apply when the weeds are actively growing and are at or beyond full bloom. Do not treat when weed is under drought stress as good soil moisture is necessary for active growth. For best results, apply in late summer or fall. Fall treatments must be applied before a killing frost. Allow 7 or more days after application before tillage.

Also for control, apply 2 quarts of this product plus 0.5 pound a.i. of Benlate in 10 to 20 gallons of water per acre. At these rates, apply using ground application only.

The following tank mixtures with 2,4-D may be applied using aerial application equipment (except in California) in fallow and reduced tillage systems only.

For suppression on irrigated agricultural land apply 1 to 2 quarts of this product plus 1 pound a.i. of 2,4-D in 10 to 20 gallons of water per acre with ground equipment only. Applications should be made following harvest or on fall fallow ground when the bindweed is actively grow-

ing and the majority of runners are 12 inches or more in length. The use of at least one irrigation will promote active bindweed growth.

For suppression, apply 16 fluid ounces of this product plus 0.5 pound a.i. of 2,4-D plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications. Applications should be delayed until maximum emergence has occurred and when vines are between 6 to 18 inches in length.

In California only, apply 1 to 5 quarts of this product per acre. Actual rate needed for suppression or control will vary within this range depending on local conditions. Also, for more specific use recommendations for California refer to the following paragraph:

For suppression on irrigated land where annual tillage is performed, apply 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to actively growing bindweed that has reached a length of 12 inches or greater. Allow maximum weed emergence and runner growth. Do not treat when weed is under drought stress as good soil moisture is necessary for active growth. Allow 3 or more days after application before tillage.

Bluegrass, Kentucky / Bromegrass, smooth / Orchardgrass—Apply 2 quarts of this product in 10 to 40 gallons of water per acre when the grasses are actively growing and most plants have reached boot-to-early seedhead stage of development. For partial control in pasture or hay crop renovation, apply 1 to 1.5 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to actively growing plants when most have reached 4 to 12 inches in height. Allow 7 or more days after application before tillage.

Orchardgrass (seeds going to no-till corn)—Apply 1 to 1.5 quarts of this product per acre plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to orchardgrass that is a minimum of 12 inches tall for spring applications and 6 inches tall for fall applications. Allow at least three days following application before planting. A sequential application of 3.75 to 4.5 quarts of Lariat® herbicide, or equivalent, will be necessary for optimum results. Lariat should be applied within 3 to 10 days following spring applications to prevent annual weed growth. Lariat is not registered for use in California.

<sup>4</sup>Lariat is a registered trademark of Monsanto Company.

Blueseed, Texas—Apply 4 to 5 quarts of this product per acre west of the Mississippi River and 3 to 4 quarts per acre east of the Mississippi River. Apply when weed is actively growing and is at or beyond full bloom. Do not treat when weed is under drought stress as good soil moisture is necessary for active growth. New leaf develop-

ment indicates active growth. For best results, apply in late summer or fall. Fall treatments must be applied before a killing frost. Allow 7 or more days after application before tillage.

**Brackenfern**—Apply 3 to 4 quarts of this product per acre as a broadcast spray or as a 1 to 1 1/4 percent solution with hand-held equipment. Apply to fully expanded fronds which are at least 18 inches long.

**Barnage, woollythai**—For control, apply 2 quarts of this product plus 1 pint of Banvel per acre. For partial control, apply 1 quart of this product plus 1 pint of Banvel per acre. Add 0.5 to 1 percent nonionic surfactant by total spray volume and apply 3 to 20 gallons of water per acre. Apply when plants are producing new active growth which has been initiated by moisture for at least 2 weeks and when plants are at or beyond flowering.

**Canarygrass, reed/Timothy/Wheatgrass, western**—Apply 2 to 3 quarts of this product per acre. For best results, apply to actively growing plants when most have reached the boot-to-head stage of growth. Allow 7 or more days after application before tillage.

**Cogongrass**—Apply 3 to 5 quarts of this product plus 0.5 to 1 percent nonionic surfactant in 10 to 40 gallons of water per acre. Apply when Cogongrass is at least 18 inches tall and actively growing in late summer or fall. Allow 7 or more days after application before tillage or mowing. Due to uneven stages of growth and the dense nature of vegetation preventing good spray coverage, repeat treatments may be necessary to maintain control.

**Dandelion/Dock, curly**—Apply 3 to 5 quarts of this product per acre when plants are actively growing and most have reached the early bud stage of growth. Allow 7 or more days after application before tillage.

Also for control, apply 16 fluid ounces of this product plus 0.5 pound a.i. 2,4-D plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre.

**Dogbane, hemp**—Apply 4 quarts of this product per acre. Apply when actively growing and when most weeds have reached the late bud to flower stage of growth following crop harvest or mowing. Allow weeds to regrow to a mature stage prior to treatment. For best results, apply in late summer or fall. Allow 7 or more days after application before tillage.

For suppression, apply 16 fluid ounces of this product plus 0.5 pound a.i. of 2,4-D plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications. Delay applications until maximum emergence of dogbane has occurred.

**Fescue, tall**—Apply 3 quarts of this product in 10 to 40 gallons of water per acre to actively growing plants when most have reached boot-to-early seedhead stage of development.

Fall applications only—Apply 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to

tessie in the fall when actively growing and plants have 6 to 12 inches of new growth. Allow 7 or more days after application before tillage. A sequential application of 1 pint per acre of this product plus nonionic surfactant will improve long-term control and control seedlings germinating after fall treatments or the following spring.

**Guineagrass**—Apply 3 quarts of this product per acre or use a 1 percent solution with hand-held equipment. Apply to actively growing guineagrass when most has reached at least the 7-leaf stage of growth. Ensure thorough coverage when using hand-held equipment. Allow 7 or more days after application before tillage.

**Johnsongrass/Pyragrass, perennial**—Apply 1 to 3 quarts of this product per acre. In annual cropping systems apply 1 to 2 quarts of this product per acre. Apply 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Use 2 quarts of this product when applying 10 to 40 gallons of water per acre. In no-till or areas where annual tillage (no-till) is not performed, apply 2 to 3 quarts of this product in 10 to 40 gallons of water per acre. For best results, apply to actively growing plants when most have reached the boot-to-head stage of growth or in the fall prior to frost. Allow 7 or more days after application before tillage. Do not tank-mix with residual herbicides when using the 1 quart per acre rate.

For burndown of Johnsongrass, apply 1 pint per acre plus 0.5 to 1 percent nonionic surfactant in 3 to 10 gallons of water per acre before the plants reach a height of 12

inches. Apply at least 5 days after treatment before tillage.

**Spot Treatment (partial control or suppression)**—Apply a 1 percent solution of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume when johnsongrass is 12 to 18 inches in height. Coverage should be uniform and complete.

**Kikuyugrass**—Apply 2 to 3 quarts of this product per acre. Spray when most kikuyugrass is at least 8 inches in height (3 or 4-leaf stage of growth) and actively growing. Allow 3 or more days after application before tillage.

**Knapweed/Horseweed**—Apply 4 quarts of this product per acre. Apply when actively growing and when most weeds have reached the late bud to flower stage of growth. Following crop harvest or mowing, allow weeds to regrow to a mature stage prior to treatment. For best results, apply in late summer or fall. Allow 7 or more days after application before tillage.

**Lantana**—Apply this product as a 1 to 1 1/4 percent solution using hand-held equipment only. Apply to actively growing lantana at or beyond the bloom stage of growth. Use the higher application rate for plants that have reached the woody stage of growth. Allow 7 or more days after application before tillage.

**Milkweed, common**—Apply 3 quarts of this product per acre. Apply when actively growing and most of the milkweed has reached the late bud to flower stage of growth. Following small grain harvest or mowing, allow milkweed to regrow to a mature stage prior to treatment. Allow 7 or more days after application before tillage.

**Muhly, wirestem**—Apply 1 to 2 quarts of this product per acre. Use 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Use 2 quarts of this product when applying 10 to 40 gallons of water per acre or in pasture, sod, or noncrop areas. Spray when the wirestem muhly is 8 inches or more in height and actively growing. Do not till between harvest and fall applications or in the fall or spring prior to spring applications. Allow 3 or more days after application before tillage. This product will not provide residual control of wirestem muhly from seeds which germinate after application of this product. Do not tank mix with residual herbicides when using the 1 quart per acre rate.

**Nightshade, silverleaf**—For control, apply 2 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Applications should be made when at least 60 percent of the plants have berries. Fall treatments must be applied before a killing frost. Allow 7 or more days after application before tillage. Do not treat when weed is under drought stress as good soil moisture is necessary for active growth.

**Nutsedge, purple, yellow**—Apply 3 quarts of this product per acre as a broadcast spray, or apply a 2 percent solution from hand-held equipment to control existing nutsedge plants and immature nutseds attached to treated plants. Treat when plants are in flower or when new nutseds can be found at rhizome tips. Nutseds which

have not germinated will not be controlled and may germinate following treatment. Repeat treatments will be required for long-term control of ungerminated tubers.

Sequential applications of 1 to 2 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre will provide control. Make applications when a majority of the plants are in the 3 to 5-leaf stage (less than 6 inches tall). Repeat this application, as necessary, when newly emerging plants reach the 3 to 5-leaf stage. Subsequent applications will be necessary for long-term control.

For suppression to partial control of existing plants, apply 1 pint to 2 quarts of this product per acre, plus 0.5 to 1 percent nonionic surfactant in 3 to 40 gallons of water per acre. Treat when plants have 3 to 5 leaves and most are less than 6 inches tall. Repeat treatments will be required to control subsequent emerging plants or regrowth of existing plants. Wait 7 days after treatment before tillage or mowing.

**Pampas**—Apply this product as a 1 to 2 percent solution using hand-held equipment. Apply to plants that are actively growing at or beyond the boot stage of growth. Thorough coverage is necessary for best control.

**Phragmites**—For partial control of phragmites in Florida and the counties of other states bordering the Gulf of Mexico, apply 5 quarts per acre as a broadcast spray or apply a 2 percent solution from hand-held equipment. In other areas of the U.S., apply 3 quarts per acre as a broadcast spray or apply a 1 percent solution from hand-

held equipment for partial control. For best results, treat during late summer or fall months or when plants are actively growing and in full bloom. Treatment before or after this stage may lead to reduced control. Due to the dense nature of the vegetation, which may prevent good spray coverage or uneven stages of growth, repeat treatments may be necessary to maintain control. Visual control symptoms will be slow to develop.

**Quackgrass—In Annual Cropping Systems, or in Pastures and Soils Followed by Deep Tillage:** Apply 1 to 2 quarts of this product per acre. For the one quart rate, apply 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. For the 2 quart rate, apply in 10 to 40 gallons of water per acre. Do not tank mix with residual herbicides when using the 1 quart rate. Spray when quackgrass is 6 to 8 inches in height and actively growing. Do not till between harvest and fall applications or in fall or spring prior to spring application. Allow 3 or more days after application before tillage. In pastures or soils, for best results use a moldboard plow.

**Quackgrass—Pasture or Soil or Other Monocrop Areas Where Deep Tillage is Not Planned Following Application:** Apply 2 to 3 quarts in 10 to 40 gallons of water per acre. Spray when the quackgrass is greater than 8 inches tall and actively growing. Do not till between harvest and fall application or in fall or spring prior to spring application. Allow 3 or more days after application before tillage.

**Redrice—For suppression,** apply 24 fluid ounces of this product per acre at each of two applications 7 to 14 days apart or a single application of 2 quarts per acre. Apply

recommended rates in 5 to 10 gallons of water per acre plus 0.5 to 1 percent nonionic surfactant by total volume. Apply to actively growing plants in late September or early October, which are at least 18 inches tall and have been growing 45 to 60 days since the last tillage operation. Make applications at least one week before a killing frost.

**Reed, giant—For control of giant reed,** apply a 2 percent solution of this product when plants are actively growing. Best results are obtained when applications are made in late summer to fall.

**Smartweed, common—Apply 3 to 5 quarts of this product per acre when plants are actively growing and most have reached the early bud stage of growth. Allow 7 or more days after application before tillage.**

**Also for control,** apply 16 fluid ounces of this product plus 0.5 pound active ingredient 2,4-D plus 0.5 to 1 percent nonionic surfactant by total volume in 3 to 10 gallons of water per acre in the late summer or fall. Apply when plants are actively growing and most have reached the early bud stage of growth. Allow 7 or more days after application before tillage.

**Spurge, leafy—For suppression,** apply 16 fluid ounces of this product plus 0.5 pound active ingredient 2,4-D plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre in the late summer or fall. Apply when plants are actively growing. If mowing has occurred prior to treatment, apply when most of the plants are 12 inches tall. Allow 7 or more days after application before tillage.

**Sweet Potato, wild**—Apply this product as a 2 percent solution using hand-held equipment. Apply to actively growing weeds that are at or beyond the bloom stage of growth. Repeat applications will be required. Allow the plant to reach the recommended stage of growth before retreatment. Allow 7 or more days before tillage.

**Thistle, Canada**—Apply 2 to 3 quarts of this product per acre. Apply to actively growing thistles when most are at or beyond the bud stage of growth. After harvest, mowing or tillage in the late summer or fall, allow at least 4 weeks for initiation of active growth and rosette development prior to the application of this product. Fall treatments must be applied before a killing frost. Allow 3 or more days after application before tillage.

For suppression of Canada thistle, apply 1 quart per acre of this product, or 1 pint of this product plus 0.5 pound a.i. 2,4-D per acre, plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre in the late summer or fall after harvest, mowing or tillage. Allow rosette regrowth to a minimum of 6 inches in diameter before treating. Applications can be made as long as leaves are still green and plants are actively growing at the time of application. Allow 3 or more days after application before tillage.

**Torpedograss**—Apply 4 to 5 quarts of this product per acre to provide partial control of torpedograss. Apply to actively growing torpedograss when most plants are at or beyond the seedhead stage of growth. Repeat applications will be required to maintain control. Fall treat-

ments must be applied before frost. Allow 7 or more days after application before tillage.

**Trumpetcrueper**—For control, apply 2 quarts of this product per acre in 5 to 10 gallons of water per acre. Apply to actively growing plants in late September or October, which are at least 18 inches tall and have been growing 45 to 60 days since the last tillage operation. Make applications at least 1 week before a killing frost.

**Other perennials listed on this label**—Apply 3 to 5 quarts of this product per acre. Apply when actively growing and most have reached early head or early bud stage of growth. Allow 7 or more days after application before tillage.

#### WOODY BRUSH AND TREES

When applied as recommended under the conditions described, this product CONTROLS or PARTIALLY CONTROLS the following woody brush, plants and trees:

|                               |                         |
|-------------------------------|-------------------------|
| <b>Alder</b>                  | <b>Maple</b>            |
| <i>Alnus</i> spp.             | Red**                   |
| <b>Ash*</b>                   | <i>Acer rubrum</i>      |
| <i>Fraxinus</i> spp.          | Sugar                   |
| <b>Aspen, quaking</b>         | <i>Acer saccharum</i>   |
| <i>Populus tremuloides</i>    | Vine*                   |
| <b>Burnsnot (Bearclaw)</b>    | <i>Acer circinnatum</i> |
| <i>Chamaedaphne foliolosa</i> | Monkey Flower*          |
| <b>Birch</b>                  | <i>Mimulus guttatus</i> |
| <i>Betula</i> spp.            |                         |

52



|                                |                                |
|--------------------------------|--------------------------------|
| Blackberry                     | Oak:                           |
| <i>Rubus</i> spp.              | Black*                         |
| Broom:                         | <i>Quercus velutina</i>        |
| French                         | Northern Pin                   |
| <i>Cytisus monspessulanus</i>  | <i>Quercus palustris</i>       |
| Scotch                         | Post                           |
| <i>Cytisus scoparius</i>       | <i>Quercus stellata</i>        |
| Buckwheat, California*         | Red                            |
| <i>Eriogonum fasciculatum</i>  | <i>Quercus rubra</i>           |
| Cascara*                       | Southern Red                   |
| <i>Rhamnus purshiana</i>       | <i>Quercus laevis</i>          |
| Catsclaw*                      | White*                         |
| <i>Acacia greggii</i>          | <i>Quercus alba</i>            |
| Ceanothus*                     | Perumpon*                      |
| <i>Ceanothus</i> spp.          | <i>Diospyros</i> spp.          |
| Chamise                        | Poison Ivy                     |
| <i>Adenostoma fasciculatum</i> | <i>Rhus radicans</i>           |
| Cherry:                        | Poison Oak                     |
| Hedge:                         | <i>Rhus toxicodendron</i>      |
| <i>Prunus emarginata</i>       | Poplar*, yellow                |
| Black                          | <i>Liriodendron tulipifera</i> |
| <i>Prunus serotina</i>         | Raspberry                      |
| Pin                            | <i>Rubus</i> spp.              |
| <i>Prunus pennsylvanica</i>    | Rose, multiflora               |
| Coyote brush                   | <i>Rosa multiflora</i>         |
| <i>Baccharis consanguinea</i>  | Russian olive***               |
|                                | <i>Elaeagnus angustifolia</i>  |

|                                    |                                |
|------------------------------------|--------------------------------|
| Creepers, Virginia*                | Sage, black                    |
| <i>Parthenocissus quinquefolia</i> | <i>Salvia melilata</i>         |
| Dewberry                           | Sagebrush, California          |
| <i>Rubus fruticosus</i>            | <i>Artemisia californica</i>   |
| Elderberry                         | Salmoneberry                   |
| <i>Sambucus</i> spp.               | <i>Rubus spectabilis</i>       |
| Elm*                               | Sassafras                      |
| <i>Ulmus</i> spp.                  | <i>Sassafras zaidum</i>        |
| Eucalyptus, Bluegem                | Sourwood                       |
| <i>Eucalyptus globulus</i>         | <i>Daydenium arboreum</i>      |
| Hesleria*                          | Sumac:                         |
| <i>Hesperis matronalis</i>         | Poison*                        |
| Heurthorn                          | <i>Rhus typhina</i>            |
| <i>Crataegus</i> spp.              | Smooth*                        |
| Hazel                              | <i>Rhus glabra</i>             |
| <i>Corylus</i> spp.                | Winged*                        |
| Honeyuckle                         | <i>Rhus copallina</i>          |
| <i>Lonicera</i> spp.               | Sweetgum                       |
| Kudzu                              | <i>Liquidambar styraciflua</i> |
| <i>Pueraria lobata</i>             | Swordfern*                     |
| Locust, black*                     | <i>Polystichum mucronatum</i>  |
| <i>Robinia pseudoacacia</i>        | Tallnettle, Chinese            |
| Madrone                            | <i>Sapium sebiferum</i>        |
| <i>Arbutus menziesii</i>           |                                |

|                            |                                |
|----------------------------|--------------------------------|
| Manzanita                  | Yan Oak                        |
| <i>Arctostaphylos</i> spp. | <i>Lithocarpus densiflorus</i> |
|                            | Thimbleberry                   |
|                            | <i>Rubus parviflorus</i>       |
|                            | Tobacco, tree*                 |
|                            | <i>Nicotiana glauca</i>        |
|                            | Trumpet creeper                |
|                            | <i>Campsis radicans</i>        |
|                            | Willow                         |
|                            | <i>Salix</i> spp.              |

\*Partial control

\*\*See below for control or partial control instructions.

\*\*\*This product is not registered in California for use on Russian olive.

NOTE: If brush has been mowed or killed or trees have been cut, do not treat until regrowth has reached the recommended stages of growth.

Apply this product when plants are actively growing and, unless otherwise directed, after full leaf expansion. Use the higher rate for larger plants and/or dense areas of growth. On vines, use the higher rate for plants that have reached the woody stage of growth. Best results are obtained when application is made in late summer or fall after fruit formation.

In arid areas, best results are obtained when application is made in the spring to early summer when brush species are at high moisture content and are flowering.

Ensure thorough coverage when using hand-held equipment. Symptoms may not appear prior to frost or senescence with fall treatments.

Allow 7 or more days after application before tillage, mowing or removal. Repeat treatments may be necessary to control plants regenerating from underground parts or seed. Some autumn colors on undesirable deciduous species are acceptable provided no major leaf drop has occurred. Reduced performance may result if fall treatments are made following a frost.

See "Directions for Use" and "Mixing, Additives, and Application Instructions" sections of this label for labeled uses and specific application instructions.

Apply this product as follows to control or partially control the following woody brush and trees:

**Alder/Dewberry/Honeysuckle/Pink Oak/Raspberry**—For control, apply 3 to 4 quarts per acre of this product as a broadcast spray or as a 1 to 14 percent solution with hand-held equipment.

**Aspen, quaking/Cherry, bitter, black, pin/Marble/White Oak, southern red/Sweetgum/Trumpet creeper**—For control, apply 2 to 3 quarts of this product per acre as a broadcast spray or as a 1 to 14 percent solution with hand-held equipment.

**Birch/Elderberry/Hazel/Saknaberry/Thimbleberry**—For control, apply 2 quarts per acre of this product as a broadcast spray or as a 1 percent solution with hand-held equipment.

**Blackberry**—For control, apply 3 to 4 quarts per acre of this product as a broadcast spray, or 1 to 1½ percent solution with hand-held equipment. Make application after plants have reached full leaf maturity. Best results are obtained when applications are made in late summer or fall. After berries have set or dropped in late fall, blackberry can be controlled by applying a ¾ percent solution of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume with hand-held equipment. For control of blackberries after leaf drop and until killing frost or as long as stems are green, apply 3 to 4 quarts of this product in 10 to 40 gallons of water per acre.

**Broom: French, Scotch**—For control, apply a 1½ to 2 percent solution with hand-held equipment.

**Buckwheat, California/Hazardia/Monkey Flower/ Tobacco tree**—For partial control of these species, apply a 1 to 2 percent solution of this product as a foliar spray with hand-held equipment. Thorough coverage of foliage is necessary for best results.

**Catsclaw**—For partial control, apply as a 1 to 1½ percent solution with hand-held equipment.

**Coyote Brush**—For control, apply a 1½ to 2 percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.

**Eucalyptus/Bluegum**—For control of eucalyptus resprouts, apply a 2 percent solution of this product with hand-held equipment when resprouts are 6 to 12 feet

tall. Ensure complete coverage. Apply when plants are growing actively. Avoid application to drought-stressed plants.

**Kudzu**—For control, apply 4 quarts of this product per acre as a broadcast spray or as a 2 percent solution with hand-held equipment. Repeat applications will be required to maintain control.

**Madrone resprouts**—For suppression or partial control, apply a 2 percent solution of this product to resprouts less than 3 to 6 feet tall. Best results are obtained with spring/early summer treatments.

**Maple, red\*\*\***—For control, apply as a 1 to 1½ percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed. For partial control, apply 2 to 4 quarts of this product per acre as a broadcast spray.

**Maple, sugar/Oak, northern pin/Oak red**—For control, apply as a 1 to 1½ percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.

**Poison Ivy/Poison Oak**—For control, apply 4 to 5 quarts of this product per acre as a broadcast spray or as a 2 percent solution with hand-held equipment. Repeat applications may be required to maintain control. Fall treatments must be applied before leaves lose green color.

**Rose, multiflora**—For control, apply 2 quarts of this product per acre as a broadcast spray or as a 1 percent

solution with hand-held equipment. Treatments should be made prior to leaf deterioration by leaf-feeding insects.

**Sage, black/Sagebrush, California/Chamise/Tallowtree, Chinese**—For control of these species, apply a 1 percent solution of this product as a foliar spray with hand-held equipment. Thorough coverage of foliage is necessary for best results.

**Tan oak resprouts**—For suppression or partial control, apply a 2 percent solution of this product to resprouts less than 3 to 6 feet tall. Best results are obtained with fall applications.

**Willow**—For control, apply 3 quarts of this product per acre as a broadcast spray or as a 1 percent solution with hand-held equipment.

**Other Woody Brush and Trees Listed on this label**—For partial control, apply 2 to 4 quarts of this product per acre as a broadcast spray or as a 1 to 2 percent solution with hand-held equipment.

### NONCROP USES

See "General Information" and "Mixing, Additives and Application Instructions" sections of this label for essential product performance information and the following "Noncrop" sections for specific recommended uses.

**EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF SPRAY WITH FOLIAGE OF DESIRABLE TURF GRASSES, TREES, SHRUBS, OR OTHER DESIRABLE**

**VEGETATION SINCE SEVERE DAMAGE OR DESTRUCTION MAY RESULT.**

**NOTE:** If spraying areas adjacent to desirable plants, use a shield made of cardboard, sheet metal or plywood while spraying to help prevent spray from contacting foliage of desirable plants.

Repeat treatments may be necessary to control weeds regenerating from underground parts or seeds.

Where repeat applications are necessary, do not exceed 10.6 quarts of this product per acre per year.

This product does not provide residual weed control. For subsequent weed control, follow a label-approved herbicide program.

Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

### INDUSTRIAL, RECREATIONAL AND PUBLIC AREAS

When applied as directed for "Noncrop Uses", under conditions described, this product controls annual and perennial weeds listed on this label growing in areas such as airports, ditch banks, dry ditches, dry canals, fence-rows, golf courses, highways, industrial plant sites, lumber yards, parking areas, parks, petroleum tank farms and pumping installations, pipelines, railroads, roadsides, schools, storage areas, other public areas and similar industrial or noncrop areas.

For specific rates of application and instructions for control of various annual and perennial weeds and woody brush and trees, see the "Weeds Controlled" section of this label.

This product may be applied with recirculating sprayers, shielded applicators, or wiper applicators in any noncrop site specified on this label. See the "Selective Equipment" part of "Application Equipment and Techniques" section of this label for information on proper use and calibration of this equipment.

### TANK MIXTURES FOR INDUSTRIAL SITES

#### ROUNDUP® plus OUST™

Use on industrial sites including airports, industrial plants, lumberyards, petroleum tank farms, pumping stations, pipelines, railroads, roadsides, storage areas or other similar sites where bare ground is desired.

When applied as directed for "Noncrop Uses" under the conditions described, this product plus Oust provides control of annual weeds listed in the "Weeds Controlled" section of the label for this product and Oust, and control or partial control of the perennial weeds listed below.

Apply 1 to 2 quarts of this product with 2 to 4 ounces of Oust in 10 to 40 gallons of spray solution per acre as a broadcast spray to actively growing weeds.

This product plus Oust tank mixtures may not be applied by air in California.

For control of annual weeds, use the lower rates of these products.

For control of the listed perennial weeds, use the higher rates of both products. For partial control, use the lower rates.

|                             |                           |
|-----------------------------|---------------------------|
| Bahiagrass                  | Johnsongrass*             |
| <i>Paspalum notatum</i>     | <i>Sorghum halepense</i>  |
| Bermudagrass*               | Portulaca**               |
| <i>Cynodon dactylon</i>     | <i>Oxalis</i> sp.         |
| Broomsedge                  | Quackgrass                |
| <i>Eriophorum vaginatum</i> | <i>Agropyron repens</i>   |
| Dock, curly                 | Tramortecreeper*          |
| <i>Rumex crispus</i>        | <i>Celastrus radicans</i> |
| Dogfennel                   | Vinegrass                 |
| <i>Eupatorium</i>           | <i>Paspalum urvillei</i>  |
| <i>capillatum</i>           | Vernain, blue             |
| Fescue, tall                | <i>Verbena asarifolia</i> |
| <i>Festuca arundinacea</i>  |                           |

\*Suppression at the higher rates only.

\*\*Control at the lower rates.

Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

†Oust is a trademark of E. I. du Pont de Nemours and Company.

5

## TANK MIXTURES NONCROP SITES

When applied as a tank mixture, this product provides control of the emerged annual weeds and partial control of the emerged perennial weeds listed in this label. When applied as a tank mixture, the following residual herbicides will provide preemergence control of the weeds listed in the individual product labels.

|   |   |   |
|---|---|---|
| ■ | ROUNDUP® plus DIURON                          | ■ |
| ■ | ROUNDUP plus KRONAR™ I                        | ■ |
| ■ | ROUNDUP plus KRONAR II                        | ■ |
| ■ | ROUNDUP plus ROWSTAR™ 30WP                    | ■ |
| ■ | ROUNDUP plus SIMAZINE,<br>PRINCE™ CALIBER™ 90 | ■ |
| ■ | ROUNDUP plus SIMAZINE 4L                      | ■ |
| ■ | ROUNDUP plus SIMAZINE 80W                     | ■ |
| ■ | ROUNDUP plus SURFLAN™ 75W                     | ■ |
| ■ | ROUNDUP plus SURFLAN AS                       | ■ |

When tank mixing with residual herbicides, add an agriculturally approved nonionic surfactant at 0.5 to 1 percent by volume of spray solution. See the "Mixing, Additives and Application Instructions" section of this label before preparing these tank mixtures.

Read and carefully observe the label claims, cautionary statements, recommended use rates and all other information on the labels of all products used in these tank mixtures. Use according to the most restrictive label directions for each product in the mixture.

### CONTROL OF EMERGED WEEDS

**Annual Weeds**—Apply 1 quart per acre of this product in these tank mixtures when weeds are less than 6 inches tall and 1½ quarts per acre when weeds are more than 6 inches tall.

**Perennial Weeds**—For partial control of perennial weeds using these tank mixtures, apply 2 to 5 quarts per acre of this product. Follow the recommendations in the "Weeds Controlled" section of this label for stage of growth and rate of application for specific perennial weeds.

### PREEMERGENCE WEED CONTROL

For preemergence weed control, refer to the individual product labels for specific noncrop sites, rates, carrier volumes and precautionary statements.

Mix only the quantity of spray solution which can be used during the same day. Do not allow these tank mixtures to stand overnight as this may result in reduced weed control.

APPLY THESE TANK MIXTURES THROUGH CONVENTIONAL BROADCAST EQUIPMENT ONLY.

<sup>TM</sup> Prince and Caliber are trademarks of E.I. du Pont de Nemours and Company.

<sup>TM</sup> Kronar is a trademark of E.I. du Pont de Nemours and Company.

<sup>TM</sup> Rowstar is a trademark of Wilson Products, Inc.

<sup>TM</sup> Surflan is a trademark of E.I. du Pont de Nemours and Company.

## FARMSTEAD WEED CONTROL

When applied as directed for "Noncrop Uses", under conditions described, this product controls undesirable vegetation listed on this label around farmstead building foundations, along and in fences, shelterbelts, and for general nonselective farmstead weed control.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "Weeds Controlled" section of this label.

## ORNAMENTALS AND CHRISTMAS TREES

THIS PRODUCT IS NOT RECOMMENDED FOR USE AS AN OVER-THE-TOP BROADCAST SPRAY IN ORNAMENTALS AND CHRISTMAS TREES.

When applied as instructed for the conditions described for "Noncrop Uses", this product controls undesirable vegetation listed on this label prior to planting ornamentals, within and around greenhouses and shadehouses, and as a postdirected spray around established ornamentals.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "Weeds Controlled" section of this label.

When repeat applications are necessary, do not exceed 16.6 quarts of this product per acre per year.

**Site Preparation**—Following preplant applications of this product, any ornamental species may be planted, transplanted, or grafted to correct non-target plants during site preparation applications.

**Greenhouse/Shadehouse Use**—This product may be used to control weeds listed on this label which are growing in greenhouses. Desirable vegetation must not be present during application and air circulation fans must be turned off.

**Postdirected Spray**—Use as a postdirected spray around established woody ornamental species such as those listed below. Care must be exercised to avoid contact of spray, drift or mist with foliage or green bark of established ornamental species.

|                             |                       |
|-----------------------------|-----------------------|
| <b>Arbutus</b>              | <b>Lilac</b>          |
| <i>Thuja</i> spp.           | <i>Syringa</i> spp.   |
| <b>Azalea</b>               | <b>Magnolia</b>       |
| <i>Rhododendron</i> spp.    | <i>Magnolia</i> spp.  |
| <b>Boxwood</b>              | <b>Maple</b>          |
| <i>Buxus</i> spp.           | <i>Acer</i> spp.      |
| <b>Crabapple</b>            | <b>Oak</b>            |
| <i>Malus</i> spp.           | <i>Quercus</i> spp.   |
| <b>Eubonymus</b>            | <b>Privet</b>         |
| <i>Eubonymus</i> spp.       | <i>Ligustrum</i> spp. |
| <b>Fir</b>                  | <b>Pine</b>           |
| <i>Abies</i> spp.           | <i>Pinus</i> spp.     |
| <i>Pseudotsuga</i> spp.     | <b>Spice</b>          |
| <b>Jasmin</b>               | <i>Prunus</i> spp.    |
| <i>Simmondsia chinensis</i> | <b>Yew</b>            |
| <b>Holly</b>                | <i>Taxus</i> spp.     |
| <i>Ilex</i> spp.            |                       |

### CUT STUMP TREATMENTS

Woody vegetation may be controlled by treating freshly cut stumps of trees and resprouts with this product. Apply this product using suitable equipment to ensure coverage of the entire cambium. Cut vegetation close to the soil surface. Apply a 50 to 100 percent solution of this product to the freshly cut surface immediately after cutting. Delays in application may result in reduced performance. For best results, applications should be made during periods of active growth and full leaf expansion. When used according to directions for cut stump application, this product will CONTROL, PARTIALLY CONTROL or SUPPRESS many types of woody brush and tree species, some of which are listed below:

|                            |                                |
|----------------------------|--------------------------------|
| Alder                      | Reed, giant                    |
| <i>Alnus</i> spp.          | <i>Arundo donax</i>            |
| Eucalyptus/Bluegum         | Saltcedar                      |
| <i>Eucalyptus glotulus</i> | <i>Tamarisk</i> spp.           |
| Madrone                    | Sweetgum                       |
| <i>Arbutus menziesii</i>   | <i>Liquidambar styraciflua</i> |
| Oak                        | Tan Oak                        |
| <i>Quercus</i> spp.        | <i>Lithocarpus densiflorus</i> |

### INJECTION AND FRILL APPLICATIONS

Woody vegetation may be controlled by injection or frill application of this product. Apply this product using suitable equipment which must penetrate into the living

tissue. Apply the equivalent of 1 ml of this product per each 2 to 3 inches of trunk diameter (DBH). This is best achieved by applying 50 to 100 percent concentration of this material either to a continuous frill around the tree or as cuts evenly spaced around the tree below all branches. As tree diameter increases in size, better results are achieved by applying diluted material to a continuous frill or more closely spaced cuttings. Avoid application techniques that allow runoff to occur from frill or cut areas in species that exude sap freely after frills or cutting. In species such as this, make frill or cut at an oblique angle so as to produce a cupping effect and use undiluted material. For best results, application should be made during periods of active growth and after full leaf expansion.

This treatment WILL CONTROL the following woody species:

|                     |                                |
|---------------------|--------------------------------|
| Oak                 | Sweetgum                       |
| <i>Quercus</i> spp. | <i>Liquidambar styraciflua</i> |
| Poplar              | Sycamore                       |
| <i>Populus</i> spp. | <i>Platanus occidentalis</i>   |

This treatment WILL SUPPRESS the following woody species:

|                        |                    |
|------------------------|--------------------|
| Black gum              | Hickory            |
| <i>Nyssa sylvatica</i> | <i>Carya</i> spp.  |
| Dogwood                | Maple, red         |
| <i>Cornus</i> spp.     | <i>Acer rubrum</i> |



## **TURFGRASSES AND GRASSES FOR SEED PRODUCTION**

### ■ **PREPLANT AND RENOVATION** ■

When applied as directed for "Noncrop Uses", under conditions described, this product controls most existing vegetation prior to the planting or renovation of either turfgrasses or grass seed production areas.

For specific rates of application and instructions for control of various annual and perennial weeds, and woody brush and trees, see the "Weeds Controlled" section of this label.

For maximum control of existing vegetation, delay planting to determine if any regrowth from escaped underground plant parts occurs. Where repeat treatments are necessary, sufficient regrowth must be obtained prior to application. For warm-season grasses, such as bermudagrass, summer or fall applications provide best control.

**DO NOT DISTURB SOIL OR UNDERGROUND PLANT PARTS BEFORE TREATMENT.** Tillage or renovation techniques such as vertical mowing, coring or slicing should be delayed for 7 days after application to allow proper translocation into underground plant parts.

### **TURFGRASSES**

Where existing vegetation is growing in a field or unmowed situation, apply this product to actively growing weeds at the stages of growth given in the "Weeds Controlled" section of this label.

Where existing vegetation is growing under mowed turfgrass management, apply this product after emitting at least one regular mowing to allow sufficient growth for good interception of the spray.

Desirable turfgrasses may be planted following the above procedures.

### **GRASSES FOR SEED PRODUCTION**

Apply this product to actively growing weeds at the stages of growth given in the "Weeds Controlled" section of this label prior to planting or renovation of cool or forage grass areas grown for seed production.

**DO NOT** feed or graze treated areas within 8 weeks after application.

### ■ **ANNUAL WEED CONTROL IN DORMANT BERMUDAGRASS AND BAHIA GRASS TURF** ■

When applied as directed for "Noncrop Uses" under the conditions described, this product will provide control or suppression of many winter annual weeds and will facilitate effective release of dormant bermudagrass and bahia grass turf. Refer to the rate table for Roundup alone under the "Release of Bermudagrass and Bahiagrass" section of this label for recommended rates and volumes on the species to be suppressed or controlled. Treat only when turf is dormant and prior to spring greenup. Spot treatments or broadcast applications of this product in excess of 16 fluid ounces per acre may result in injury or delayed greenup in highly maintained turfgrass areas.

i.e., golf courses, lawns, etc. DO NOT APPLY TANK MIXTURES of this product plus Dust in highly maintained turfgrass areas.

### RELEASE OF BERMUDAGRASS OR BAHIA GRASS

**NOTE:** Use only in areas where bermudagrass or bahia grass are desirable ground covers and where some temporary injury or desiccation can be tolerated. Use tank mixtures of this product plus Dust only on railroads, highways, utility plant sites, or other right-of-way areas.

When applied as directed for "Nonresidential Uses" under the conditions described, this product will provide control or suppression of many winter annual weeds and tall fescue for effective release of dormant bermudagrass or bahia grass. This product may be tank-mixed with Dust as recommended for residual control. Make applications to dormant bermudagrass or bahia grass. Tank mixtures of this product plus Dust may delay greenup. To avoid delays in greenup and minimize injury, do not add more than 1 ounce per acre of Dust on bermudagrass or more than 1/2 ounce per acre on bahia grass, or treat when these grasses are in a semi-dormant condition.

For best results on winter annuals, treat when plants are in an early growth stage (below 6 inches in height) after most have germinated. For best results on tall fescue, treat when fescue is in or beyond the 4 to 6 leaf stage.

### WEEDS CONTROLLED

Rate recommendations for control or suppression of winter annuals and tall fescue are listed below.

Apply the recommended rates of this product alone or as a tank mixture in 10 to 25 gallons of water, plus 0.5 to 1 percent nonionic surfactant by total spray volume per acre.

For the best recommendation for the mixture of weeds within your geographic areas, contact your Monsanto sales representative.

### WEEDS CONTROLLED OR SUPPRESSED WITH ROUNDUP® ALONE\*

NOTE: C = Control

S = Suppression

| WEED SPECIES                                  | ROUNDUP FLUID OZ/ACRE |    |    |    |    |    |
|---|-----------------------|----|----|----|----|----|
|   | 8                     | 12 | 16 | 24 | 32 | 64 |
| Barnyard, little<br><i>Horseweed pusillum</i> | S                     | C  | C  | C  | C  | C  |
| Bedstraw, catchweed<br><i>Galium aparine</i>  | S                     | C  | C  | C  | C  | C  |
| Blugrass, annual<br><i>Poa annua</i>          | S                     | C  | C  | C  | C  | C  |
| Chenille<br><i>Chenopodium<br/>latifolium</i> | S                     | C  | C  | C  | C  | C  |

| WEED SPECIES                                       | ROUNDUP FLUID OZ/ACRE |    |    |    |    |    |
|--|-----------------------|----|----|----|----|----|
|  | 8                     | 12 | 16 | 24 | 32 | 64 |
| Chickweed, common<br><i>Stellaria media</i>        | S                     | C  | C  | C  | C  | C  |
| Clover, crimson<br><i>Trifolium incarnatum</i>     | *                     | S  | S  | C  | C  | C  |
| Clover, large hop<br><i>Trifolium campestre</i>    | *                     | S  | S  | C  | C  | C  |
| Fescue, tall<br><i>Festuca arundinaceae</i>        | *                     | *  | *  | *  | S  | S  |
| Geranium, Carolina<br><i>Geranium carolinianum</i> | *                     | *  | S  | S  | C  | C  |
| Henbit<br><i>Lamium amplexicaule</i>               | *                     | S  | C  | C  | C  | C  |
| Ryegrass<br>Italian<br><i>Lolium multiflorum</i>   | *                     | *  | S  | C  | C  | C  |
| Speedwell, corn<br><i>Veronica arvensis</i>        | S                     | C  | C  | C  | C  | C  |
| Vetch, common<br><i>Vicia sativa</i>               | *                     | *  | S  | C  | C  | C  |

\*These rates apply only to sites where an established competitive turf is present.

#### WEEDS CONTROLLED OR SUPPRESSED WITH ROUNDUP® PLUS OUST®

NOTE: C = Control  
S = Suppression

| WEED SPECIES                                    | ROUNDUP + OUST        |    |    |    |                |    |   |   |
|---|-----------------------|----|----|----|----------------|----|---|---|
|   | ROUNDUP<br>(FL. OZ/A) |    |    |    | OUST<br>(OZ/A) |    |   |   |
|   | 8                     | 12 | 16 | 16 | 12             | 16 | 1 | 1 |
| Barley, little<br><i>Hordeum pusillum</i>       | C                     | C  | C  | C  | C              | C  | C | C |
| Bedstraw, catchweed<br><i>Galium aparine</i>    | C                     | C  | C  | C  | C              | C  | C | C |
| Bluegrass, annual<br><i>Poa annua</i>           | S                     | C  | C  | C  | C              | C  | C | C |
| Chenit<br><i>Chaerophyllum tainturieri</i>      | C                     | C  | C  | C  | C              | C  | C | C |
| Chickweed, common<br><i>Stellaria media</i>     | S                     | C  | C  | C  | C              | C  | C | C |
| Clover, crimson<br><i>Trifolium incarnatum</i>  | S                     | S  | S  | S  | C              | C  | C | C |
| Clover, large hop<br><i>Trifolium campestre</i> | *                     | *  | S  | S  | S              | C  | C | C |
| Fescue, tall<br><i>Festuca arundinaceae</i>     | *                     | *  | *  | *  | *              | S  | S | S |

## ROUNDUP

(7L OZ/A) 8 12 12 16 16 12 16

| WEED    | +      | +   | +   | +   | +   | +   |
|---------|--------|-----|-----|-----|-----|-----|
| SPECIES | OUST   | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
|         | (OZ/A) |     |     |     |     |     |

|  |   |   |   |   |   |   |
|--|---|---|---|---|---|---|
| Geranium, Carolina<br><i>Geranium carolinianum</i> | + | S | S | C | C | C |
| Hemlock<br><i>Larix laricina</i>                   | + | S | C | C | C | C |
| Ryegrass, Italian<br><i>Lolium multiflorum</i>     | + | S | S | C | C | C |
| Speedwell, corn<br><i>Veronica arvensis</i>        | S | C | C | C | C | C |
| Vetch, common<br><i>Vicia sativa</i>               | C | C | C | C | C | C |

\* These rates or minimums of rates apply only to sites where an established competitive turf is present.

## RELEASE OF ACTIVELY GROWING BERMUDAGRASS

When applied as directed, this product will aid in the release of bermudagrass by providing control of annual species listed in the "Weeds Controlled" section of this and the Oust label, and suppression or partial control of certain perennial weeds.

For control or suppression of those annual species listed on this label, use 1 to 3 pints of this product as a broadcast spray in 10 to 25 gallons of spray solution per acre. Use the lower rate when treating annual weeds below 6

inches in height (or length of runner in annual smut). Use the higher rate as plant size increases or as they approach flower or seedhead formation.

Use the higher rate of this product for partial control of the following perennial species. Use the lower rates for suppression of growth. For best results, see the "Weeds Controlled" section of this label for proper stage of growth.

|                                |                              |
|--------------------------------|------------------------------|
| Bahia grass                    | Johnson grass**              |
| <i>Paspalum notatum</i>        | <i>Sorghum halepense</i>     |
| Bluestem, silver               | Trumpetcrupper*              |
| <i>Andropogon saccharoides</i> | <i>Campsis radicans</i>      |
| Fescue, tall                   | Vinegrass                    |
| <i>Festuca arundinacea</i>     | <i>Paspalum unguiculatum</i> |

\* Suppression at higher rates only.

\*\* Control at the higher rates.

This product may be tank-mixed with Oust. If tank-mixed, use no more than 1 to 2 pints per acre of this product with 1 to 2 ounces of Oust per acre.

Use the lower rates of both mixtures to control annual weeds below 6 inches in height (or runner length in annual smut) that are listed in the "Weeds Controlled" section of this booklet and the Oust label. Use the higher rates as annual weeds increase in size and approach the flower or seedhead stages.

Use the higher rates of this product to provide partial control of the following perennial weeds. Use the lower rates for suppression of growth.

|                                 |                            |
|---------------------------------|----------------------------|
| Bahia grass                     | Johnsongrass*              |
| <i>Paspalum notatum</i>         | <i>Sorghum halepense</i>   |
| Bluestem, silver                | Poorjoe**                  |
| <i>Andropogon scoparius</i>     | <i>Diodia teres</i>        |
| Broomrape                       | Tuhpeltreeper*             |
| <i>Andropogon virginicus</i>    | <i>Campylopus radicans</i> |
| Dock, curly                     | Vasegrass                  |
| <i>Rumex crispus</i>            | <i>Paspalum urvillei</i>   |
| Oxeye daisy                     | Vernon, blue               |
| <i>Eupatorium capillifolium</i> | <i>Verbena hastata</i>     |

#### Fescue, tall

*Festuca arundinacea*

\*Suppression at higher rates only.

\*\*Control at the higher rates.

Use only on well-established bermudagrass. Bermudagrass injury may result from the treatment but regrowth will occur under moist conditions. Repeat applications in the same season are not recommended, since severe injury may result.

Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

### COOL SEASON TURF GROWTH REGULATION

When applied as directed, this product will suppress growth and seedhead development of listed turf species in industrial sites.

This product is recommended for management of coarse turfs on roadside rights-of-way or other industrial areas. Do not use on high-quality turf or other areas where some turf color changes cannot be tolerated. Slight turf discoloration may occur but turf will regreen and regrow under moist conditions as effects of this product wear off.

Apply 4 to 6 fluid ounces of this product per acre alone or in a recommended tank mixture. Spray volumes of 10 to 40 gallons per acre are recommended.

When using this product, mix 2 quarts of a nonionic surfactant per 100 gallons of spray solution.

This product can be used for growth and seedhead suppression of:

Tall fescue  
Smooth Brome

For best results, apply this product in a recommended tank mixture to actively growing turfgrasses after greenup in the spring of the year. For suppression of seedheads, applications must be made before boot-to-seedhead stage of development. Applications made from seedhead emergence until maturity may result in turf discoloration or injury.

After mowing or removal of seedheads, this product in a recommended tank mixture may also be used to suppress the growth of certain turfgrasses. Allow turf to recover from stress caused by heat, drought, or mowing before making applications. Applications made to turf under stress may increase the potential for discoloration or injury.

### ANNUAL GRASSES

For growth suppression of some annual grasses such as annual ryegrass, wild barley and wild oats, apply 3 to 4 fluid ounces of this product in 10 to 40 gallons of spray solution per acre. Applications should be made when annual grasses are actively growing and before the seedheads are in the boot stage of development. Treatments made after seedhead emergence may cause injury to the desired grasses.

### TANK MIXTURES

For the following tank mixtures, consult each product label for weeds controlled and the correct stage of application. Do not treat turf under stress.

#### Tank mixtures plus 2,4-D Amine

For additional weed control benefits, up to 1 pound a.i. per acre of 2,4-D amine may be added to the following tank mixtures. Consult the label for 2,4-D amine for weeds controlled.

#### TALL FESCUE

##### Roundup plus Telar™

For suppression of tall fescue growth and seedheads, and control or partial control of some annual weeds, apply this tank mixture after greenup and prior to boot-to-seedhead stage of development. Use up to 1/4 ounce of Telar per acre.

This tank mixture can also be applied after mowing or removal of tall fescue seedheads for turf growth suppression. Make only one of the above applications per growing season.

##### Roundup plus Dust™

For suppression of tall fescue growth and seedheads, and control or partial control of some annual weeds, apply this tank mixture after greenup and prior to boot-to-seedhead stage of development. Use up to 1/4 ounce of Dust per acre.

##### Roundup plus Escort®

This tank mixture can be applied after mowing or removal of tall fescue seedheads for turf growth suppression and control or partial control of some annual weeds. Use up to 1/3 ounce of Escort per acre.

#### SMOOTH BROME

##### Roundup plus Dust

For suppression of smooth brome growth and seedheads and control or partial control of some annual weeds, apply this tank mixture after greenup and prior to boot-to-seedhead stage of development. Use up to 1/4 ounce of Dust per acre.

™, ® and Telar are trademarks of E. I. du Pont de Nemours and Company.

## BAHIAGRASS SEEDHEAD AND VEGETATIVE SUPPRESSION

When applied as directed in the indicated noncrop areas (roadsides, airports, golf course roughs, and plant sites), this product will provide significant inhibition of seedhead emergence and will suppress vegetative growth for a period of approximately 45 days with single applications and approximately 120 days with sequential applications.

Apply this product 1 to 2 weeks after full greenup of bahiagrass or after the bahiagrass has been mowed to a uniform height of 3 to 4 inches. Applications must be made prior to seedhead emergence. Apply 6 fluid ounces per acre of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 10 to 25 gallons of water per acre.

Sequential applications of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume may be made at approximately 45 day intervals to extend the period of seedhead and vegetative growth suppression, for continued seedhead suppression, sequential applications must be made prior to seedhead emergence. Apply no more than 2 sequential applications per year. As a first sequential application, apply 4 fluid ounces of this product per acre plus nonionic surfactant. A second sequential application of 2 to 4 fluid ounces per acre plus nonionic surfactant may be made approximately 45 days after the last application.

A tank mixture of this product plus Oust may be applied only on roadsides for seedhead inhibition and vegetative suppression. Apply 6 fluid ounces per acre of this product plus 0.25 ounce per acre of Oust, plus 0.5 to 1 percent nonionic surfactant by total spray volume 1 to 2 weeks following an initial spring mowing. When using this product plus Oust for suppression of bahiagrass, make only one application per year.

## CROPPING SYSTEMS

When applied as directed for "Cropping Systems", under the conditions described, this product controls annual and perennial weeds listed on this label, prior to the emergence of direct seeded crops or prior to transplanting of crops listed on this label.

See "General Information" and "Mixing, Additives and Application Instructions" sections of this label for essential product performance information.

See the following "Cropping Systems" sections for specific recommended uses.

**EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF SPRAY WITH FOLIAGE, GREEN STEMS OR FRUIT OF DESIRABLE CROPS, PLANTS, TREES OR OTHER DESIRABLE VEGETATION SINCE SEVERE DAMAGE OR DESTRUCTION MAY RESULT.**

Repeat treatments may be necessary to control weeds regenerating from underground parts or seed. Except as otherwise specified on this label, repeat treatments must

be made before the crop emerges in accordance with the instructions of this label.

Except as otherwise specified in a crop section of this label, the combined total of all treatments must not exceed 2 quarts per acre of this product per year.

Do not plant subsequent crops other than those on the label for 30 days following application.

Do not harvest or feed treated vegetation for 8 weeks following application. Following spot treatment or selective equipment use, allow 14 days before grazing domestic livestock or harvesting forage grasses and legumes.

|                    |                        |
|--------------------|------------------------|
| ALFALFA*           | LETTUCE                |
| ARTICHOKE          | LOGANBERRY             |
| JERUSALEM          | LONGAN                 |
| ASPARAGUS*         | LYCHEE                 |
| ATEMOTA            | MELONS***              |
| BARLEY*            | MUSTARD GREENS         |
| BEANS (All)        | OATS*                  |
| BET GREENS         | OKRA                   |
| BETTS (Red, Sugar) | OLLIEBERRY             |
| BLACKBERRY         | ONION                  |
| BLUEBERRY          | PARSNIPS               |
| BOYSENBERRY        | PASSION FRUIT          |
| BREADFRUIT         | PEANUTS                |
| BROCCOLI           | PEAS (All)             |
| CABBAGE            | PEPPER***              |
| CANISTEL           | PERSIMMONS             |
| CARAMBOLA          | PINEAPPLE****          |
| CARROT             | POTATO (Irish, Sweet)  |
| CARLIFLOWER        | PUMPKIN***             |
| CHERRY             | RASPBERRY (Black, Red) |
| CUCURBIT           | RICE**                 |
| CORN (All)*        | RUTABAGA               |
| COTTON*            | SAPODILLA              |
| CRANBERRY          | SAPOTI                 |
| CUCUMBER***        | (Black, Marney, White) |
| CURRENT            | SORGHUM (White)*       |
| DATES              | SOURMOP                |
| DEWBERRY           | SOYBEANS*              |
| EGGPLANT***        | SPINACH                |
| ELDERBERRY         | SQUASH*** (Summer,     |
| FORAGE GRASSES*    | Winter)                |
| FORAGE LEGUMES*    | SUGAR APPLE            |
| GARLIC***          | TAMARIND               |
| GOOSEBERRY         | TOMATILLO***           |
| GUARDS***          | TOMATOES***†           |
| HORSERADISH        | TURNIPS                |
| HUCKLEBERRY        | WATERCRESS***          |
| JABOTICABA         | WATERMELON***          |
| JACKFRUIT          | WHEAT*                 |
| KALE               | YAMS                   |
| LENTILS            |                        |

\*Spot treatments may be applied in these crops.

\*\*Do not treat rice fields or levees when the fields contain flood water.

\*\*\*Apply only prior to planting. Allow at least 3 days between application and planting.

\*\*\*\*Do not feed or graze treated pineapple forage following application.

† Use is restricted to direct seeded crops only.

68



When applying this product prior to transplanting crops into plastic mulch, care must be taken to remove residues of this product from the plastic prior to transplanting. Residues can be removed by 1/2 inch natural rainfall or by applying water via a sprinkler irrigation system.

**Spot Treatment** (Only those crops with "\*" can be spot treated.)—Applications in growing crops must be made prior to heading of small grains and milo, initial pod set in soybeans, silking of corn, or boll opening on cotton.

For forage grasses and forage legumes see "Spot Treatment" in the "Pastures" section of "Cropping Systems" in this label.

For dilution and rates of application using boom or hand-held equipment, see "Mixing, Additives and Application Instructions" and "Weeds Controlled" sections of this label.

**NOTE: FOR FORAGE GRASSES AND FORAGE LEGUMES, NO MORE THAN ONE-TENTH OF ANY ACRE SHOULD BE TREATED AT ONE TIME. FOR ALL OTHER CROPS, DO NOT TREAT MORE THAN 10 PERCENT OF THE TOTAL FIELD AREA TO BE HARVESTED.**

THE CROP RECEIVING SPRAY IN TREATED AREA WILL BE KILLED. TAKE CARE TO AVOID DRIFT OR SPRAY OUTSIDE TARGET AREA FOR THE SAME REASON.

**Selective Equipment**—This product may be applied through recirculating sprayers, shielded applicators, or wiper applicators in cotton and soybeans. Shielded and

wiper applicators may also be used in tree crops and grapes. Wiper applicators may be used in rutabagas, forage grasses and forage legumes, including pasture sites and grain sorghum (milo).

See the "Selective Equipment" part of the "Application Equipment and Techniques" section of this label for information on proper use and calibration of this equipment.

Allow at least the following time intervals between application and harvest:

|   |         |
|---|---------|
| Cotton, Soybeans  | 7 days  |
| Apples, Atemoya, Avocado, Breadfruit,<br>Canistel, Carambola, Cherry, Citrus,<br>Dates, Grapes, Jaboticaba, Jackfruit,<br>Longan, Lychee, Passion Fruit, Pear,<br>Persimmons, Rutabagas, Sapodilla,<br>Sapote, Soursoy, Sugar Apple, Tamarind | 14 days |
| Stone Fruit   | 17 days |
| Nut Crops   | 21 days |
| Sorghum (milo)*   | 40 days |

\*Do not use roller applicators. Do not feed or graze treated milo fodder. Do not ensile treated vegetation.

## ASPARAGUS

When applied as directed for "Cropping Systems" under the conditions described, this product controls weeds listed on this label in asparagus.

For specific rates of applications and instructions for control of various annual and perennial weeds, see the "Weeds Controlled" section of this label.

**Prior to Crop Emergence**—Apply this product prior to crop emergence for the control of emerged labeled annual and perennial weeds. **DO NOT APPLY WITHIN A WEEK BEFORE THE FIRST SPEARS EMERGE.**

**Spot Treatment**—Apply this product immediately after cutting, but prior to the emergence of new spears. Do not treat more than 10 percent of the total field area to be harvested. Do not harvest within 5 days of treatment.

**Postharvest**—Apply this product after the last harvest and all spears have been removed. If spears are allowed to regrow, delay application until ferns have developed. Delayed treatments should be applied as directed or shielded spray in order to avoid contact of the spray with ferns, stems or spears. Direct contact of the spray with the asparagus may result in serious crop injury.

**NOTE:** Select and use recommended types of spray equipment for postemergence postharvest applications. A directed spray is any application where the spray pattern is aligned in such a way as to avoid direct contact of the spray with the crop. A shielded spray is any application where a physical barrier is positioned and maintained between the spray and the crop to prevent contact of spray with the crop.

## BERRIES AND SMALL FRUITS

For cranberries, apply after fruit set and no later than 30 days before harvest.

For other berries, apply as a preplant broadcast application, or as a directed spray or wiper application post-planting.

Wiper applications may be used in cranberries in accordance with instructions in this section.

See "General Information" and "Mixing, Additives and Application Instructions" sections of this label for essential product performance information.

See the "Selective Equipment" part of the "Application Equipment and Techniques" section of this label for information on recommended use and calibration of this equipment.

**For Wiper or other Wiper Applications**—Mix 1 gallon of this product in 4 gallons of water to prepare a 20 percent solution. Apply the solution to emerged weeds. Apply after cranberry fruit set and no later than 30 days before harvest.

In severe infestations, reduce equipment ground speed to ensure that adequate amounts of this product are wiped on the weeds. A second treatment in the opposite direction may be beneficial.

Do not permit herbicide solution to contact desirable vegetation, including green shoots, canes, or foliage.

70-

## FALLOW AND REDUCED TILLAGE SYSTEMS

FOR AERIAL APPLICATION IN CALIFORNIA, REFER TO  
SUPPLEMENTAL LABEL

Use this product in fallow and reduced tillage systems for control of annual weeds prior to emergence of crops listed in this label. Refer to the "Weeds Controlled" section of this label for specific rates and instructions. This product may be applied using ground or aerial spray equipment. See the "Application Equipment and Techniques" section of this label for instructions.

- TANK MIXTURES ■
- ROUNDUP<sup>®</sup> plus BANVEL ■
- plus NONIONIC SURFACTANT
- ROUNDUP plus 2,4-D ■
- plus NONIONIC SURFACTANT
- ROUNDUP plus GOAL<sup>™</sup> ■
- plus NONIONIC SURFACTANT

DO NOT APPLY BANVEL OR 2,4-D TANK MIXTURES BY  
AIR IN CALIFORNIA.

Applications of 2,4-D or Banvel must be made at least  
7 days prior to planting corn. Applications of 2,4-D must  
be made at least 30 days prior to planting soybeans.

The addition of Banvel in a mixture with this product  
may provide short-term residual control of selected weed  
species. Some crop injury may occur if Banvel is applied

within 45 days of planting. Refer to the Banvel and 2,4-D  
labels for cropping restrictions and other use in-  
structions.

### Roundup plus Goal Tank Mixtures

This product alone or in tank mixtures with Goal plus 0.5  
to 1 percent nonionic surfactant by total spray volume  
will provide control of those weeds listed below.

Make applications when weeds are actively growing and  
at the recommended stages of growth. Avoid spraying  
when weeds are subject to moisture stress, when dust  
is on the foliage or when straw canopy covers the weeds.

| ROUNDUP          |     | ROUNDUP           |     |
|------------------|-----|-------------------|-----|
| 12 fluid oz/acre |     | 16 fluid oz/acre  |     |
| Wheat            | 18" | Annual grasses at |     |
| Barnyard         | 12" | leaf plus:        |     |
| Bluegrass,       |     | Ryegrass,         |     |
| annual           | 6"  | annual            | 6"  |
| Barnyardgrass    | 6"  | Chickweed         | 6"  |
| Rye              | 6"  | Groundsel         | 6"  |
|                  |     | Marestail         | 6"  |
|                  |     | Rocket, London    | 6"  |
|                  |     | Shepherdspurse    | 5"  |
|                  |     | Crabgrass         | 12" |
|                  |     | Johnsongrass,     |     |
|                  |     | seedling          | 12" |
|                  |     | Limbquarters      | 12" |
|                  |     | Date, wild        | 12" |
|                  |     | Pigweed, redroot  | 12" |
|                  |     | Mustards          | 12" |

| ROUNDUP<br>12 fluid oz/acre<br>+<br>GOAL**<br>2 to 4 fluid oz/acre |    | ROUNDUP<br>16 fluid oz/acre<br>+<br>GOAL**<br>2 to 4 fluid oz/acre |     |
|--|----|--|-----|
| Annual grasses above<br>plus:                                      |    | Annual weeds above<br>plus:  |     |
| Chenopod, common   | 3" | Chenopod, common   | 6"  |
| Chickweed  | 3" | Groundsel  | 5"  |
| Groundsel  | 3" | Chickweed  | 12" |
| Rocket, London   | 6" | Rocket, London   | 12" |
| Shepherdspurse   | 6" | Shepherdspurse   | 12" |

\* Maximum height or length in inches.

\*\* Use the higher rate when weeds approach maximum recommended height or stands are dense.

These recommended tank mixtures may be applied using ground or aerial spray equipment. Refer to the "Weeds Controlled" section of this label for specific rates and instructions.

GOAL is a trademark of Rohm and Haas Company.

#### ECOFARMING SYSTEMS

The recommendations made in this section are not registered for use in California.

The Ecofarming System consists of the following rotation: winter wheat, corn/sorghum, ecofallow.

Use the following tank mixtures for control of emerged annual weeds before planting corn or sorghum in the Ecofarming System.

ROUNDUP® at 16 to 20 fluid ounces per acre  
plus  
2,4-D at 0.375 to 0.5 pound a.i. per acre  
plus  
ATRAZINE at 0.75 to 1 pound a.i. per acre  
plus  
LASSO® at 2.5 to 3 quarts per acre

The above tank mixture should be applied in 28-0-0 or 32-0-0 liquid fertilizer carrier at 20 to 30 gallons per acre. The liquid fertilizer may be diluted with water to achieve the required carrier volume.

WEEDS CONTROLLED—The following weeds, up to a maximum height of 4 inches, will be controlled:

|   |   |
|---|---|
| Brome, downy<br><i>Bromus tectorum</i>      | Lettuce, prickly<br><i>Lactuca serriola</i>       |
| Cheat<br><i>Bromus secalinus</i>            | Pigweed, redroot<br><i>Amaranthus retroflexus</i> |
| Foxtail, green<br><i>Setaria viridis</i>    | Thistle, Russian<br><i>Salsola kali</i>           |
| Foxtail, yellow<br><i>Setaria lutescens</i> | Wheat, volunteer<br><i>Triticum aestivum</i>      |
| Kochia*<br><i>Kochia scoparia</i>           |   |

\*For improved control of kochia, add 4 fluid ounces per acre (0.125 pound a.i. per acre) of Banvel to the above tank mixture.

Risk of crop injury from 2,4-D or Banvel can be reduced by applying this treatment 7 to 14 days before planting.

Refer to the label booklet for Lasso herbicide for pre-emergence weed control achieved by this tank mixture.

Refer to the specific product labels for crop rotation restrictions and cautionary statements for all products used in these tank mixtures.

• Lasso is a registered trademark of Monsanto Company.

#### AID TO TILLAGE

This product, when used in conjunction with preplant tillage practices, will provide control of downy brome, cheat, volunteer wheat, tansy mustard and foxtail. Apply 8 fluid ounces of this product plus 0.5 to 1 percent non-ionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Make applications when weeds are actively growing and before they are 6 inches in height. Application must be followed by conventional tillage practices no later than 15 days after treatment and before regrowth occurs. Allow at least 1 day after application before tillage. Tank mixtures with residual herbicides may result in reduced performance.

#### PASTURES

Apply this product prior to planting forage grasses and legumes.

**Pasture or Hay Crop Renovation**—When applied as a broadcast spray, this product controls the annual and

perennial weeds listed in this label prior to planting forage grasses or legumes. Remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting.

**Spot Treatment**—When applied as a spot treatment as recommended, this product controls annual and perennial weeds listed in this label which are growing in pastures, forage grasses and forage legumes composed of bahiagrass, bermudagrass, bluegrass, brome, fescue, orchardgrass, ryegrass, timothy, wheatgrass, alfalfa or clover.

**Wiper Application**—When applied as directed, this product controls or suppresses the weeds listed under "Wiper Applicators" in the "Selective Equipment" section of this label.

For spot treatment and wiper application, apply in areas where the movement of domestic livestock can be controlled. No more than one-tenth of any acre should be treated at one time. Further applications may be made in the same area at 30 day intervals. Remove domestic livestock before application and wait 14 days after application before grazing livestock or harvesting.

#### SUGARCANE

When applied as directed for "Cropping Systems", under the conditions described, this product controls those emerged annual and perennial weeds listed on this label growing in or around sugarcane or in fields to be planted to sugarcane. This product will also control undesirable sugarcane.

**NOTE:** Where repeat treatments are necessary, do not exceed a total of 10.6 quarts of this product per acre per year. Do not apply to vegetation in or around ditches, canals or ponds containing water to be used for irrigation.

**Broadcast Treatment—**Apply this product in 10 to 40 gallons of water per acre on emerged weeds growing in fields to be planted to sugarcane.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "Weeds Controlled" section of this label.

For removal of last stubble or ratoon cane, apply 4 to 5 quarts of this product in 10 to 40 gallons of water per acre to new growth having at least 7 or more new leaves. Allow 7 or more days after application before tillage.

**Spot Treatment in or Around Sugarcane Fields—**For dilution and rates of application using hand-held equipment, see "Mixing, Additives and Application Instructions" and "Weeds Controlled" sections of this label.

For control of volunteer or diseased sugarcane, make a 1 percent solution of this product in water and spray to wet the foliage of vegetation to be controlled.

**NOTE:** When spraying volunteer or diseased sugarcane, the plants should have at least 7 new leaves.

Avoid spray contact with healthy cane plants since severe damage or destruction may result.

Do not feed or graze treated sugarcane forage following application.

### CONSERVATION TILLAGE, MINIMUM TILLAGE AND NO-TILL SYSTEMS CORN AND SOYBEANS Tank Mixtures

The recommendations made in this section are not registered for use in California.

When applied as recommended under the conditions described, the tank mixtures listed in this section control many emerged weeds, and give preemergence control of many annual weeds where corn or soybeans will be planted directly into a cover crop, established sod, or in previous crop residues.

Refer to specific product labels for crop rotation restrictions and cautionary statements of all products used in these tank mixtures. For mixing instructions, see the "Mixing, Additives and Application Instructions" section of this label.

Apply these tank mixtures in 10 to 20 gallons of water or 10 to 60 gallons of nitrogen solution per acre before, during or after planting. Do not apply these mixtures after crop emergence.

When tank mixing with residual herbicides, add an agriculturally approved nonionic surfactant at 0.5 to 1 percent by volume of spray solution. The addition of 1 to 2 percent dry ammonium sulfate by weight may increase the performance of this product.

74

NOTE: When using these tank mixtures, do not exceed 4 quarts of this product per acre.

#### CORN

For residual control, this product may be tank-mixed with the following herbicides or combination of herbicides:

|                 |           |
|-----------------|-----------|
| LESSO®/ALACHLOR | ATRAZINE  |
| LARIAT®         | CYANAZINE |
| BULLET®         | SIMAZINE  |
| DUAL™           | PROWL™    |
| DICER™          |           |

For improved burndown, this product may be tank-mixed with 2,4-D or dicamba. Applications of 2,4-D or dicamba must be made at least 7 days prior to planting corn. See the "Weeds Controlled" section for specific rate information.

#### SOYBEANS

For residual control, this product may be tank-mixed with the following herbicides or combination of herbicides:

|                 |           |
|-----------------|-----------|
| CANDOR™         | LDX® PLUS |
| COMMAND™        | PREVIEW™  |
| DUAL™           | PROWL™    |
| GEMINI™         | TURBO™    |
| LESSO®/ALACHLOR | SCEPTER™  |
| LEXONE™         | SENCO®    |
| LINURON         | SQUADRON™ |

For improved burndown, this product may be tank-mixed with the following herbicides:

2,4-DB  
2,4-D\*

\*Applications of 2,4-D must be made at least 30 days prior to planting soybeans. See the "Weeds Controlled" section for specific rate information.

#### CORN AND SOYBEANS

**Annual Weeds**—For difficult to control weeds such as fall panicum, barnyardgrass, crabgrass, shattercane and broadleaf signalgrass up to 2 inches tall, and Pennycuia smartweed up to 6 inches tall, apply this product at 2 pints per acre in these tank mixtures. For other labeled annual weeds, apply 1 to 1.5 pints of this product per acre when weeds are less than 6 inches tall, and 2 to 3 pints when weeds are over 6 inches tall. For a complete list of annual weeds controlled, see the "Weeds Controlled" section of this label.

**Perennial Weeds**—At normal application times in minimum tillage systems, perennial weeds may not be at the proper stage of growth for control. See the "Weeds Controlled" section of this label for the proper stage of growth for perennial weeds.

Use of 2 to 4 quarts of this product per acre in the tank mixtures mentioned above, under these conditions provides top kill and reduces competition from many emerged perennial grass and broadleaf weeds. For emerged perennial weeds controlled, see the "Weeds Controlled" section of this label.

To obtain the desired stage of growth, it may be necessary to apply this product alone in the late summer or fall and then follow with a label-approved, seedling weed control program at planting.

USE OF THESE TANK MIXTURES FOR BERMUDAGRASS OR JOHNSONGRASS CONTROL IN MINIMUM TILLAGE SYSTEMS IS NOT RECOMMENDED. For bermudagrass control, follow the instructions under "Control of Perennial Weeds" section of this label and then use a label-approved seedling weed-control program in a minimum tillage or conventional tillage system. For johnsongrass control, follow instructions under "Control of Perennial Weeds" section of this label, and then use a label-approved seedling weed-control program with conventional tillage.

<sup>8</sup> Butlet, Lasso and Larat are registered trademarks of Monsanto Company.

<sup>12</sup> Canopy, Bladex, Gemini, Leapon, Lasso Plus and Preview are trademarks of E.I. du Pont de Nemours and Company.

<sup>14</sup> Dual is a trademark of Ciba-Geigy Corporation.

<sup>15</sup> Sencor and Turon are trademarks of Bayer AG.

<sup>16</sup> Provel, Acceptor and Squalone are trademarks of American Cyanamid Company.

<sup>17</sup> Command is a trademark of FMC Corporation.

## PREHARVEST APPLICATIONS

### COTTON

When applied as directed under the conditions described, this product controls annual and perennial weeds listed on this label prior to the harvest of cotton.

**Broadcast Applications**—This product may be applied using either aerial or ground spray equipment. For ground applications with broadcast equipment, apply this

product in 10 to 20 gallons of water per acre. For aerial applications, apply this product in 3 to 10 gallons of water per acre.

FOR AERIAL APPLICATIONS, REFER TO THE "APPLICATION EQUIPMENT AND TECHNIQUES" AND "AERIAL EQUIPMENT" SECTIONS OF THIS LABEL.

FOR AERIAL APPLICATIONS IN CALIFORNIA, REFER TO THE FEDERAL SUPPLEMENTAL LABEL FOR AERIAL APPLICATIONS IN THAT STATE FOR SPECIFIC INSTRUCTIONS, RESTRICTIONS AND REQUIREMENTS.

DO NOT EXCEED A MAXIMUM RATE OF 1 QUART PER ACRE OF THIS PRODUCT WHEN MAKING APPLICATIONS BY AIR.

**Weed Control**—For specific rates of application and instructions for control of various annual and perennial weeds, for this product used alone or in the following tank mixtures, see the "Weeds Controlled" section of this label.

To control johnsongrass using multiple directed or broadcast over-the-top spray equipment, apply 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 10 to 20 gallons of water per acre. Ensure complete coverage.

For partial control of field bindweed, apply 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 20 gallons of water per acre. Apply when bindweed is actively growing and 12 inches or greater in length. Reduced performance may result if bindweed is under drought stress.

76-



### Tank Mixtures

ROUNDUP<sup>®</sup> plus DEF<sup>™</sup> 6

ROUNDUP plus FOLEX<sup>™</sup>

ROUNDUP plus PREP<sup>™</sup>

ROUNDUP plus PREP plus DEF 6 or FOLEX

When applied as recommended under the conditions described, these tank mixtures control annual and perennial weeds listed on this label prior to the harvest of cotton. For application guidelines, precautions and use rates, refer to the DEF, Folex and Prep labels.

This product when tank-mixed with DEF 6 or Folex defoliant may provide enhancement of cotton leaf drop and regrowth inhibition.

**Timing of Application**—Apply this product or these tank mixtures for preharvest weed control after 60 percent of the cotton bolls have opened.

**NOTE: DO NOT APPLY TO CROPS GROWN FOR SEED.**

Allow a minimum of 7 days between application and harvest. Do not feed or graze treated cotton forage or hay following preharvest applications.

<sup>™</sup>DEF is a trademark of Mobay Chemical Corporation.

<sup>™</sup>Folex and Prep are trademarks of Rhone-Poulenc, Inc.

### TREE AND VINE CROPS

This product is recommended for weed control in established groves, vineyards, or orchards, or for site preparation prior to transplanting crops listed in this section. Applications may be made with boom equipment, CDA,

shielded sprayers, hand-held and high-volume wands, lances, or orchard guns, or with wiper applicator equipment, except as directed in this section. See the "Application Equipment and Techniques" section of this label for specific information on use of equipment.

When applying this product, refer to the "Weeds Controlled" section of this label and to specific recommendations in this section for rates to be used.

#### NOTE

Repeat treatments may be necessary to control weeds originating from underground parts of untreated weeds or from seeds. This product does not provide residual weed control. For subsequent weed control, use repeated applications of this product. Do not apply more than 10.6 quarts of this product per acre per year.

**EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF HERBICIDE SOLUTION, SPRAY, DRIFT, OR MIST WITH FOLIAGE OR GREEN BARK OF TRUNK, BRANCHES, SUCKERS, FRUIT, OR OTHER PARTS OF TREES OR VINES. CONTACT OF THIS PRODUCT WITH OTHER THAN MATURED BROWN BARK CAN RESULT IN SERIOUS CROP DAMAGE.**

**AVOID PAINTING OUT STUMPS WITH THIS PRODUCT AS INJURY RESULTING FROM ROOT GRAFTING MAY OCCUR IN ADJACENT TREES.**

Reduced control may result when applications are made to annual or perennial weeds that have been mowed, grazed or cut and have not been allowed to regrow to the recommended stage for treatment.

For specific rates of applications and instructions, see the "Weeds Controlled" section of this label, and to specific recommendations which follow.

### MIDDLE'S MANAGEMENT FOR ANNUAL WEEDS IN MIDDLES BETWEEN ROWS OF TREE AND VINE CROPS

For citrus crops treat uniformly between trees.

#### ■ ROUNDUP® ■ ■ ROUNDUP plus GOAL™ ■

This product alone or in mixtures with Goal will control or suppress the annual weeds listed below.

Apply the recommended rates of this product, either alone or in mixtures with Goal, plus 0.5 to 1 percent non-ionic surfactant by spray volume in 3 to 10 gallons of water per acre. Apply when weeds are actively growing and less than 6 inches in height or diameter. If weeds are under drought stress, irrigate prior to application. Reduced control may occur if weeds have been mowed prior to application. Up to 48 fluid ounces per acre of this product may be used to control weeds which have been mowed, are stressed, or are growing in dense populations.

| WEED SPECIES  | MAXIMUM<br>HEIGHT/<br>DIAMETER<br>(INCHES) | RATE PER ACRE                        |                           |
|---|--|--------------------------------------|---------------------------|
|   |  | ROUNDUP®<br>(FLUID<br>OUNCES)        | GOAL<br>(FLUID<br>OUNCES) |
| Barley<br><i>Hordeum vulgare</i><br>Barnyard, annual<br><i>Polypogon</i>  | 6  | 8                                    | •                         |
| Barnyardgrass<br><i>Echinochloa crus-galli</i><br>Chickweed, common<br><i>Sisymbrium officinalis</i><br>Red Bladder<br><i>Galinsoga ciliata</i>   | 6  | 12                                   | •                         |
| Cabuyo<br><i>Amaranthus spinosus</i><br>Peanut, black<br><i>Arachis glabra</i><br>Eragrost, common<br><i>Setaria viridis</i><br>Paspalum<br><i>Paspalum conjugatum</i><br>Lambquarters, common<br><i>Rumex crispus</i><br>Pigweed, redroot<br><i>Amaranthus retrofractus</i><br>Rabbit, garden<br><i>Capriola</i><br>Sorghum, common<br><i>Sorghum bicolor</i><br>Sorghum, grain<br><i>Sorghum bicolor</i><br>Sorghum, annual<br><i>Sorghum bicolor</i> | 6  | 16<br><br>OR<br>16 to 32 + 4 to 16** | •                         |

78

| WEED SPECIES   | MAXIMUM<br>HEIGHT/<br>DIAMETER<br>(INCHES) | RATE PER ACRE                 |                           |
|--|--|-------------------------------|---------------------------|
|  |  | ROUNDUP®<br>(FLUID<br>OUNCES) | GOAL<br>(FLUID<br>OUNCES) |
| Chenopod, common<br><i>Mahoe spp.</i>  | 3  | 12 to 32                      | + 4 to 16                 |
| Chenopod, common<br><i>Mahoe spp.</i><br><i>Filices*</i><br><i>Erodium spp.</i><br><i>Hesperis matronalis</i><br><i>Conyza canadensis</i><br><i>Nettle, stinging</i><br><i>Urtica dioica</i><br><i>Purslane, common</i><br><i>Portulaca oleracea</i> | 6  | 16 to 32                      | + 4 to 16                 |

\*Suppression only.

\*\*The mixture of this product plus Goal is recommended when weeds are stressed or growing in dense populations.

#### STRIPS FOR ANNUAL AND PERENNIAL WEEDS IN STRIPS OF TREE AND VINE CROPS

#### TANK MIXTURES WITH RESIDUAL HERBICIDES

When applied as a tank mixture, this product provides control of the emerged annual weeds and control or suppression of emerged perennial weeds listed in this label.

The following residual herbicides will provide preemergence control of those weeds listed in the individual product labels.

- ROUNDUP® plus GOAL™ 1.6E ■
- ROUNDUP plus KARWEX™ DF ■
- ROUNDUP plus KROVAR™ I ■
- ROUNDUP plus KROVAR™ II ■
- ROUNDUP plus SIMAZINE,  
PRINCEP CALIBER™ 90 ■
- ROUNDUP plus SIMAZINE 4L ■
- ROUNDUP plus SIMAZINE 80W ■
- ROUNDUP plus SOLICAM™ 800F ■
- ROUNDUP plus SURFLAN™ AS ■
- ROUNDUP plus SURFLAN 75W ■
- ROUNDUP plus SIMAZINE  
(80W, or 4L, or PRINCEP CALIBER 90)  
plus SURFLAN (AS or 75W) ■
- ROUNDUP plus GOAL (1.6E)  
plus SURFLAN (AS or 75W) ■
- ROUNDUP plus GOAL (1.6E)  
plus SIMAZINE  
(80W, or 4L, or PRINCEP CALIBER 90) ■
- ROUNDUP plus GOAL (1.6E)  
plus SURFLAN (AS or 75W)  
plus SIMAZINE (80W, 4L,  
or PRINCEP CALIBER 90) ■

Do not apply these tank mixtures in Puerto Rico.

When tank-mixing with residual herbicides, add an agriculturally approved nonionic surfactant at 0.5 to 1 percent by volume of spray solution.

Refer to the individual product labels for specific crops, rates, geographical restrictions and precautionary statements.

Read and carefully observe the label claims, cautionary statements, rates and all other information on the labels of all products.

\*Kantner is a trademark of E.I. duPont de Nemours and Company.

### RECOMMENDED RATES

**Annual Weeds**—Apply 1 to 5 quarts per acre of this product in these tank mixtures. Use rates at the higher end of the recommended range when weeds are stressed, growing in dense populations or are greater than 12 inches tall.

**Perennial Weeds**—Apply 1 pint to 5 quarts per acre of this product in these tank mixtures to control or suppress perennial weeds. Follow the recommendations in the "Weeds Controlled" section of this label for stage of growth and application rates for specific perennial weeds.

#### ROUNDUP® plus GOAL plus SIMAZINE / SURFLAN

This product plus low rates of Goal in three-way or four-way mixtures with simazine and/or Surflan will provide postemergence control of the weeds listed below.

Refer to the individual simazine and Surflan labels for preemergence rates, weeds controlled, precautionary statements and other important information.

Apply these tank mixtures in 3 to 40 gallons of water. Add 0.5 to 1 percent nonionic surfactant by total spray volume to the spray solution.

Apply 1 to 5 quarts per acre of this product plus 4 to 48 fluid ounces per acre of Goal plus labeled rates of simazine and/or Surflan to control the following weeds:

|                               |                                  |
|-------------------------------|----------------------------------|
| Barley, wild                  | Horseweed / Marestail            |
| <i>Hordeum leporinum</i>      | <i>Gnaphalium glaucocephalum</i> |
| Bluegrass, annual             | Mertie, stinging                 |
| <i>Poa annua</i>              | <i>Urtica dioica</i>             |
| Chenopod, common              | Pinktopweed                      |
| <i>Malva</i> spp.             | <i>Matricaria matricariodes</i>  |
| Chickweed, common             | Rocket, London                   |
| <i>Stellaria media</i>        | <i>Sisymbrium irio</i>           |
| Filaree*                      | Shepherdspurse                   |
| <i>Erodium</i> spp.           | <i>Capsella bursa-pastoris</i>   |
| Flaxweed, flaxleaf            | Scotchthistle, annual            |
| <i>Gnaphalium bonariensis</i> | <i>Sonchus oleraceus</i>         |
| Groundsel, common             |                                  |
| <i>Senecio vulgaris</i>       |                                  |

\*Use a minimum of 1.5 quarts of this product in these mixtures.

NOTE: This recommendation does not preclude the use of Goal in these mixtures at higher, labeled rates for pre-emergence weed control.

80

### ■ PERENNIAL GRASS SUPPRESSION ■ ORCHARD FLOORS

When applied as directed, this product will suppress vegetative growth as indicated below.

#### Bahiagrass

This product will provide significant inhibition of seedhead emergence and will suppress vegetative growth for a period of approximately 45 days with a single application and approximately 120 days with sequential applications. Apply this product 1 to 2 weeks after full green-up or after mowing to a uniform height of 3 to 4 inches. Applications must be made prior to seedhead emergence. Apply 6 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 10 to 25 gallons of water per acre.

Sequential applications of this product plus nonionic surfactant may be made at approximately 45-day intervals to extend the period of seedhead and vegetative growth suppression. For continued seedhead suppression, sequential applications must be made prior to seedhead emergence. Apply no more than 2 sequential applications per year. As a first sequential application, apply 4 fluid ounces of this product plus nonionic surfactant. A second sequential application of 2 to 4 fluid ounces may be made approximately 45 days after the last application.

#### Bermudagrass

For burndown, apply 1 to 2 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray

volume in 3 to 20 gallons of water per acre. Use 1 quart of this product in 3 to 20 gallons of water per acre east of the Rocky Mountains. Use 1 to 2 quarts of this product in 3 to 10 gallons of water per acre west of the Rocky Mountains. Use this treatment only if reduction of the bermudagrass stand can be tolerated. When burndown is required prior to harvest, allow at least 21 days to ensure sufficient time for burndown to occur.

**Suppression only (east of the Rocky Mountains)**—Apply 6 to 16 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 20 gallons of water per acre no sooner than 1 to 2 weeks after full green-up. Mowing prior to application may occur provided a minimum height of 3 inches is maintained. Rates of 6 to 10 fluid ounces of this product plus nonionic surfactant should be used in shaded conditions or where a lesser degree of suppression is desired. Sequential applications may be made when regrowth occurs and bermudagrass injury and stand reduction can be tolerated.

**Suppression only (west of the Rocky Mountains)**—Apply 16 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre up to 6 inches in height and no sooner than 1 to 2 weeks after full green-up. Mowing prior to application may occur provided a minimum height of 3 inches is maintained. Sequential applications may be made when regrowth occurs and bermudagrass injury and stand reduction can be tolerated.

### Cool Season Grass Covers

For suppression of tall fescue, fine fescue, orchardgrass and quackgrass, apply 8 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 10 to 20 gallons of water per acre. For best suppression, add ammonium sulfate to the spray solution at a rate of 2 percent by weight or 17 pounds per 100 gallons of spray solution.

For suppression of Kentucky bluegrass covers, apply 6 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant. Do not add ammonium sulfate.

For best results, mow cool-season grass covers in the spring to even their height and apply the recommended rate of this product 3 to 4 days after mowing. Avoid treating cool season grass covers under poor growing conditions, such as drought stress (drip irrigation), disease or insect damage.

### LOW VOLUME APPLICATION (FLORIDA AND TEXAS)

For burndown or control of the weeds listed, apply the recommended rates of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 30 gallons of water per acre. Where weed foliage is dense, use 10 to 30 gallons of water per acre.

#### Annual Weeds

**Goatshead**—Apply 2 to 3 quarts per acre of this product plus 17 pounds of ammonium sulfate per 100 gallons

of water plus 0.5 to 1 percent nonionic surfactant by total spray volume. Apply in 20 to 30 gallons of water per acre when plants are actively growing. Use 2 quarts per acre when plants are less than 8 inches tall and 3 quarts per acre when plants are greater than 8 inches. If goatweed is greater than 8 inches, the addition of Knorr II or Karmex may improve control. Use labeled rates for these residual products.

Read and carefully observe the label claims, cautionary statements, rates and all other information on the Knorr II and Karmex labels.

#### Perennial Weeds

Apply when weeds are actively growing and at the growth stages listed in the "Perennial Weeds Controlled" section of this label. If perennial weeds are mowed, allow weeds to regrow to the recommended stage of growth.

S = Suppression      B = Burndown  
PC = Partial control    C = Control

| WEED SPECIES            | ROUNDUP RATE PER ACRE |       |       |       |
|-------------------------|-----------------------|-------|-------|-------|
|                         | 1 qt                  | 2 qts | 3 qts | 5 qts |
| Bermudagrass            | B                     | •     | PC    | C     |
| Guineagrass             |                       |       |       |       |
| Texas and Florida Ridge | B                     | C     | C     | C     |
| Florida Flatwoods       | •                     | B     | C     | C     |
| Paragrass               | B                     | C     | C     | C     |
| Torpedograss            | S                     | •     | PC    | C     |

8V

## TREE CROPS

**Citrus\*\*:** citron, grapefruit, kumquat, lemon, lime, orange, pummelo, tangelo, tangerine, tangelo.

**Nuts\*\*:** almond, chestnuts, filbert, macadamia, pecan, pistachio, walnut.

**Pome fruit\*\*:** apple, pear.

**Stone fruit\*\*\*:** apricots, cherries, nectarines, olives, peaches, plums/prunes.

For cherries, any application equipment listed in this section may be used in all states.

For citron and olives, apply as a directed spray only.

Any application equipment listed in this section may be used in apricots, nectarines, peaches, and plums/prunes growing in Arizona, California, Colorado, Idaho, Kansas, Kentucky, New Jersey, North Dakota, Oklahoma, Oregon, Texas, Utah, and Washington, except for peaches grown in the states specified in the following paragraph. In all other states use wiper equipment only.

For PEACHES grown in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, and Tennessee only, apply with a shielded boom sprayer or shielded wiper applicator which prevents any contact of this product with the foliage or bark of trees. Apply no later than 90 days after first bloom. Applications made after this time may result in severe damage. Remove suckers and low hanging limbs at least 10 days

prior to application. Avoid applications near trees with recent pruning wounds or other mechanical injury. Apply only near trees which have been planted in the orchard for 2 or more years. EXTREME CARE MUST BE TAKEN TO ENSURE NO PART OF THE PUNCH TREE IS CONTACTED.

**Tropical fruit:** acerola, akee\*, avocado\*, banana (plantain), breadfruit\*, carib\*, carambola\*, coffee\*\*\*\*, dates\*, figs\*, guava, jaboticaba\*, jackfruit\*, litchi\*, lychee\*, mango\*, papaya, passion fruit\*, persimmon\*, sapodilla, sapote, sourcup, sugar apple\*, tamarind\*, etc. Allow a minimum of 1 day between last application and harvest of guava and papaya. In coffee and banana, delay applications 3 months after transplanting to allow the new coffee or banana plant to become established.

### NOTE:

\*Allow a minimum of 14 days between last application and harvest.

\*\*Allow a minimum of 21 days between last application and harvest of these crops.

\*\*\*Allow a minimum of 17 days between last application and harvest.

\*\*\*\*Allow a minimum of 28 days between last application and harvest.

## VINE CROPS

### Kiwi Fruit\*

**Grapes:** Any variety of table, wine, or raisin grape may be treated with any equipment listed in this section.

In the northeast and Great Lakes regions, applications must be made prior to the end of bloom stage of grapes to avoid injury.

\*Applications should not be made when green shoots, canes, or foliage are in the spray zone.

\*Allow a minimum of 14 days between last application and harvest.

## CALIFORNIA

This product has been approved by the U.S. Environmental Protection Agency and by the state of California for the uses, crops and sites listed in this label. With the exception of these items, this booklet contains the material approved by California.

These use conditions, crops and sites may not be treated with this product in California until approval is received:

- Cool season turf growth regulation.
- Escort tank mixtures.

# ACCEPTED

DATE: 11-1-1984

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 546-116.5

84-



(This page left blank intentionally)

(This page left blank intentionally)

(This page left blank intentionally)

(This page left blank intentionally)

(This page left blank intentionally)

(This page left blank intentionally)

This product is protected by  
U.S. Pat. No. 4,405,531.  
Other patents pending.  
No license granted under any  
non-U.S. patent(s).

This product has been approved for use in California  
except as stated otherwise on page 221.

EPA Reg. No. 524-445 898.07-000.01/53

In case of an emergency involving this product,  
Call Collect, day or night, (314) 694-4000

©MONSANTO COMPANY 1992

MONSANTO COMPANY  
AGRICULTURAL PRODUCTS  
ST. LOUIS, MISSOURI, 63167 U.S.A.

122

88-

**Roundup**

**Complete Directions for Use**

---

EPA Reg. No. 524-435

898-07-000.01/53

# Monsanto

---

Monsanto Company  
Suite 1100  
700 14th Street, N.W.  
Washington, D.C. 20005

March 10, 1992

Office of Pesticide Programs - H7504C  
Document Processing Desk  
U.S. Environmental Protection Agency  
Room 226A, Crystal Mall #2  
1921 Jefferson Davis Highway  
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor  
Product Manager (25)

Subject: MON-35085 Herbicide (EPA Reg. No. 524-445)  
Addition of Brand Name / Submission of Final Printed Labels

Dear Sir:

Monsanto requests that the following brand name be added to EPA Reg. No. 524-445, effective July 1, 1992:

Roundup®, including Roundup in the C-Pak Container

Enclosed are five (5) copies of the final printed label booklet (version 1992-2; 898.07-000.01/53) for Roundup herbicide for your approval and stamping. This label is identical to the MON-35085 herbicide label that was approved by the Agency on March 18, 1991, with the following minor changes:

1. In the **Noncrop** section, several reformatting changes have been made. These minor changes are identical to the changes previously made to the label booklet for EPA Reg. No. 524-308.
2. The following **Noncrop** sections were omitted from this particular printing:
  - Tank Mixtures for Forestry Site Preparations
  - Silvicultural Sites and Rights-of-Way


If you have any questions regarding this request, please contact Dr. Russ Schneider or me.

Sincerely,



Sheila A. Schuette, Ph.D.  
Senior Registration Specialist  
(314) 694-7248

cc: R.P. Schneider  
D.P. Ward  
R.G. Danhaus  
S.D. Schuette

|   |  |  |                                     |
|---|--|--|-------------------------------------|
| (A)  | United States Environmental Protection Agency<br>Office of Pesticide Programs (H7505C)<br>Washington, DC 20460 | <input type="checkbox"/> Registration<br><input checked="" type="checkbox"/> Amendment<br><input type="checkbox"/> Other | OPP Identifier Number<br><br>156754 |
|   | Application for Pesticide:   |  |                                     |

## Section I

|   |  |  |
|---|--|--|
| 1. Company/Product Number<br>Monsanto/524-445   | 2. EPA Product Manager<br>Robert J. Taylor   | 3. Proposed Classification<br><input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted |
| 4. Company/Product (Name)<br>MON-35085 Herbicide  | PM#<br>25  |  |
| 5. Name and Address of Applicant (Include ZIP Code)<br>Monsanto Company<br>700 14th Street, N.W., Suite 1100<br>Washington, D.C. 20005<br><br><input type="checkbox"/> Check if this is a new address | 6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to:<br><br>EPA Reg. No. _____<br>Product Name _____ |  |

## Section II

|  |  |
|--|--|
| <input checked="" type="checkbox"/> Amendment - Explain below                  | <input type="checkbox"/> Final printed labels in response to Agency letter dated _____ |
| <input type="checkbox"/> Resubmission in response to Agency letter dated _____ | <input type="checkbox"/> "Me Too" Application.   |
| <input type="checkbox"/> Notification - Explain below.                         | <input type="checkbox"/> Other - explain below.  |

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Addition of brand name: Roundup® Herbicide

Submission of final printed labels

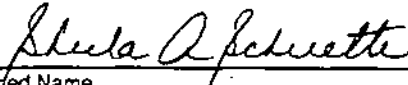
## Section III

|   |  |   |   |   |                   |
|---|--|---|---|---|-------------------|
| 1. Material This Product Will Be Packaged In:   |  |   |   | 2. Type of Container  |                   |
| Child-Resistant Packaging<br><input type="checkbox"/> Yes*<br><input checked="" type="checkbox"/> No  | Unit Packaging<br><input type="checkbox"/> Yes<br><input checked="" type="checkbox"/> No | Water Soluble Packaging<br><input type="checkbox"/> Yes<br><input checked="" type="checkbox"/> No |   | <input type="checkbox"/> Metal<br><input checked="" type="checkbox"/> Plastic<br><input type="checkbox"/> Glass<br><input type="checkbox"/> Paper<br><input type="checkbox"/> Other (Specify) _____ |                   |
| * Certification must be submitted.  |  | If "Yes," Unit Package wgt.   | No. per container                                       | If "Yes," Package wgt.  | No. per container |
| 3. Location of Net Contents Information<br><input type="checkbox"/> Label <input checked="" type="checkbox"/> Container   |  | 4. Size(s) of Retail Container<br>1 gal, 2.5 gal, 30 gal,<br>54 gal, 100 gal, bulk                |   | 5. Location of Label Directions<br><input type="checkbox"/> On Label<br><input type="checkbox"/> On Labeling accompanying product   |                   |
| 6. Manner in Which Label Is Affixed To Product<br><input type="checkbox"/> Lithograph<br><input type="checkbox"/> Paper glued<br><input type="checkbox"/> Stenciled |  |   | <input checked="" type="checkbox"/> Other (vinyl glued) |   |                   |

## Section IV

|   |  |   |
|---|--|---|
| 1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.) |  |   |
| Name<br>Russell P. Schneider, Ph.D.   | Title<br>Agricultural Regulations Director | Telephone No. (Include Area Code)<br>(202) 783-2460 |

## Certification

|  |  |   |
|--|--|---|
| I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law. |  | 6. Date Application Received<br>(Stamped)<br><br>92 |
| 2. Signature<br>  | 3. Title<br>Senior Registration Specialist |   |
| 4. Typed Name<br>Sheila A. Schuette, Ph.D.   | 5. Date<br>3/10/92                         |   |
|  |  |   |



## PAPERWORK REDUCTION ACT NOTICE and INSTRUCTIONS

**PAPERWORK REDUCTION ACT NOTICE:** Public reporting burden for this collection of information is estimated to average 0.85 hour per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

**INSTRUCTIONS:** This form is to be used for all applications for new registration, end use reregistration, amendment, resubmission, to applications for notifications, final printed labeling, reregistration, etc. In order to process an application for a new registration submitted on this form, the following material must accompany the application:

1. Certification with Respect to Citation of Data (EPA Form 8570-29). [If not exempted by 40 CFR 152.81 (b) (4)];
2. Confidential Statement of Formula (EPA Form 8570-4);
3. Formulator's Exemption Statement (EPA Form 8570-27);
4. Five copies of draft labeling;
5. Three copies of any data submitted;
6. Authorization letter where applicable;
7. Matrices where applicable.

**Submission of Labeling** - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8.5 x 11 inch paper or a mockup of the proposed label. If prepared as a mockup, it should be constructed in such a way as to facilitate storage in an 8.5 x 11 inch file. Mockup labels significantly smaller than 8.5 x 11 inches should be mounted on 8.5 x 11 inch paper for submission.

**Submission of Data** - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

**SPECIFIC INSTRUCTIONS:** Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Sections I, III, and IV must be completed by the applicant. For applications submitted in connection with amended registration actions, resubmissions, notifications, reregistrations, etc., Sections I, II, and IV must be completed by the applicant.

**Block A** - Check the appropriate action for which you are submitting this form.

**SECTION I** - This section must be completed, as applicable, for all registration actions.

1. **Company/Product Number** - Insert your Company Number, if one has been assigned by EPA. This number may have been assigned to you as a basic registrant, a distributor, or as an establishment. If your product is registered, insert the Product Number.
2. **EPA Product Manager** - If known, fill in the name and PM number of the EPA Product Manager.
3. **Proposed Classification** - Specify the proposed classification of this product.
4. **Product Name** - Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.
5. **Name and Address of Applicant** - The name of the firm or person and address shown in your application is the person or firm to whom the registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.
6. **Expedited Review** - FIFRA section 3 (c) 3 (B) provides for expedited review of applications for registration, or amendments to existing registrations, that are similar or identical to other pesticide products that are currently registered with the EPA. In order for your application to be eligible for expedited review, you must provide us with the EPA Registration Number and product name of the product you believe is similar to or identical to your product. The product must be similar or identical in both formulation and labeled uses.

**SECTION II** - This section must be completed for all applications submitted to amend the registration only of a currently registered product (Amendment), for a resubmission in response to an Agency letter, for notifications to the Agency, for the submission of final printed labeling, for reregistration and for any other action that pertains to a specific EPA-registered product. This section is not to be used for a new application for registration.

1. **Subject of submission** - Check the applicable block and provide the Agency letter date if appropriate. Provide a brief explanation of the purpose(s) for the submission, such as "the addition of a site, pest or crop (specify)"; "amend the Confidential Statement of Formula by..."; "reregistration submission"; general label revision of use directions." Attach a separate page if additional space is needed.

**SECTION III (Packaging and Container Information)** - This Section must be completed for all applications submitted in connection with new registration or applicable amendments.

1. **Type of Packaging** - Check the appropriate block if your product will be packaged in the indicated packaging types. Indicate the size of the individual packets and number per retail container.
2. **Type of Retail Container** - Indicate type of container in which product will be marketed.
3. **Location of Net Contents** - Specify the net contents of all retail containers for your product.
4. **Size(s) of Retail Container** - Specify the net contents of all retail containers for your product.
5. **Location of Use Directions** - Indicate the location of the use directions for your product.
6. **Manner in which label is affixed to product** - Indicate the method product label is attached to retail container.

**SECTION IV (Contact Point)** - This section must be completed for all applications for Registration actions, i.e., new products registration, resubmission, "me-too," reregistration, etc.

- 1-5. Self-explanatory.
6. EPA Use Only.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

JUL 29 1991

Dr. Sheila A. Schuette  
Monsanto Company  
700 14th Street, N.W. Suite 1100  
Washington, D.C. 20005

Dear Dr. Schuette:

Subject: MON-35085 RT Herbicide (alternate formulation)  
EPA Registration No. 524-445  
Your letter dated June 4, 1991

The scientific review and evaluation of the alternate formulation submitted above have been completed. The requested alternate formulation is acceptable and our records have been modified accordingly.

Sincerely,

*Robert J. Taylor*  
Robert J. Taylor, PM-25  
Fungicide-Herbicide Branch  
Registration Division (H7505C)

CONCURRENCES

|      |               |  |  |  |  |  |  |  |
|------|---------------|--|--|--|--|--|--|--|
| IBOL |               |  |  |  |  |  |  |  |
| NAME | <i>Robert</i> |  |  |  |  |  |  |  |
| FE   |               |  |  |  |  |  |  |  |

| SUBMISSION REVIEW RECORD  |  |  |  |  |  | 1. REGISTRATION NUMBER       |  | CYCLE | 2. DATE RECEIVED |  |  |                               |  |
|---|--|--|--|--|--|------------------------------|--|-------|------------------|--|--|-------------------------------|--|
| 3. JCIO PUBLICATION NECESSARY<br><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO        |  |  |  |  |  | 4. PETITION NO.              |  |       |                  |  |  |                               |  |
| 6. METHOD OF SUPPORT<br><input type="checkbox"/> 2A <input type="checkbox"/> 2B <input type="checkbox"/> 2C |  |  |  |  |  | 7. PRODUCT MANAGER           |  |       |                  |  |  |                               |  |
| 9. DATE PULLED  |  |  |  |  |  | 10. DATE PUBLISHED           |  |       |                  |  |  | 11. ACTION TYPE               |  |
| 12. OUTGOING DATE   |  |  |  |  |  | 13. RECEIVED PM TEAM         |  |       |                  |  |  | 14. PROJECTED RETURN          |  |
| 15. REVIEW TYPE CODE  |  |  |  |  |  | 16. REVIEWER CODE (Initials) |  |       |                  |  |  | 17. SIGNATURE OF REVIEWER     |  |
| 18. COM-MENT CODE   |  |  |  |  |  | 19. DATE REVIEW COMPLETED    |  |       |                  |  |  | 20. PRODUCT MANAGER SIGNATURE |  |
| A REVIEWABILITY TEAM  |  |  |  |  |  |                              |  |       |                  |  |  |                               |  |
| B PRODUCT MANAGER TEAM EFFICACY REVIEW  |  |  |  |  |  |                              |  |       |                  |  |  |                               |  |
| C PRODUCT MANAGER TEAM HUMAN SAFETY REVIEW  |  |  |  |  |  |                              |  |       |                  |  |  |                               |  |
| D PRODUCT MANAGER TEAM ENVIRONMENTAL SAFETY REVIEW  |  |  |  |  |  |                              |  |       |                  |  |  |                               |  |
| E PRODUCT MANAGER TEAM RESUBMISSION REVIEW  |  |  |  |  |  |                              |  |       |                  |  |  |                               |  |
| F PRODUCT MANAGER   |  |  |  |  |  |                              |  |       |                  |  |  | UKW NAC 062691                |  |
| G INTERAGENCY REFERRAL  |  |  |  |  |  |                              |  |       |                  |  |  |                               |  |
| H COST-BENEFIT REVIEW   |  |  |  |  |  |                              |  |       |                  |  |  |                               |  |
| I PUBLIC COMMENTS REVIEW  |  |  |  |  |  |                              |  |       |                  |  |  |                               |  |
| J EEE BRANCH INSECTICIDE EFFICACY   |  |  |  |  |  |                              |  |       |                  |  |  |                               |  |
| K EEE BRANCH HERBICIDE EFFICACY   |  |  |  |  |  |                              |  |       |                  |  |  |                               |  |
| L EEE BRANCH FUNGICIDE EFFICACY   |  |  |  |  |  |                              |  |       |                  |  |  |                               |  |
| M EEE BRANCH RODENTICIDE EFFICACY   |  |  |  |  |  |                              |  |       |                  |  |  |                               |  |
| N EEE BRANCH DISINFECTANT EFFICACY  |  |  |  |  |  |                              |  |       |                  |  |  |                               |  |
| O CHEMISTRY BRANCH RESIDUE CHEMISTRY  |  |  |  |  |  |                              |  |       |                  |  |  |                               |  |
| P EEE BRANCH ENVIRON-<br>MENTAL CHEMISTRY   |  |  |  |  |  |                              |  |       |                  |  |  |                               |  |
| Q TOXICOLOGY BRANCH<br>HUMAN SAFETY   |  |  |  |  |  |                              |  |       |                  |  |  |                               |  |
| R EEE BRANCH ENVIRON-<br>MENTAL SAFETY  |  |  |  |  |  |                              |  |       |                  |  |  |                               |  |
| S   |  |  |  |  |  |                              |  |       |                  |  |  |                               |  |
| T   |  |  |  |  |  |                              |  |       |                  |  |  |                               |  |

United States Environmental Protection Agency  
Office of Pesticide Programs (TS-767)  
Washington, DC 20460

OPP Identifier Number

134040

Application for Pesticide: ☐ Registration  
☒ Amendment

## Section I

|                                      |                         |   |   |
|--------------------------------------|-------------------------|---|---|
| 1. Company/Product Number<br>524-445 | 2. Date<br>June 4, 1991 | 3. Product Manager<br>Robert J. Taylor (25) | 4. Proposed Classification<br><input checked="" type="checkbox"/> General <input type="checkbox"/> Restricted |
|--------------------------------------|-------------------------|---|---|

5. Name and Address of Applicant (Include ZIP Code)

Monsanto Company  
Suite 1100  
700 14th Street, N.W.  
Washington, D.C. 20005☐ Check if this is a new address

6. Product Name

MON-35085 RT

## Section II - Amendment Information

|  |                                |
|--|--------------------------------|
| 1. Subject<br><input type="checkbox"/> Resubmission in response to Agency letter<br><input type="checkbox"/> Final printed label in response to Agency letter<br><input checked="" type="checkbox"/> Other (explain below) | Date of Letter<br>June 4, 1991 |
|--|--------------------------------|

Request for Alternate Formulation: Submission of Alternate Confidential Statement of Formula (CSF)

## Section III

|   |  |   |   |
|---|--|---|---|
| 1. Material This Product Will Be Packaged In  |  | 2. Type of Container  |   |
| Child-Resistant Packaging<br><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  | Unit Packaging<br><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No<br>If "Yes,"<br>Unit package wgt No. per container | Water-Soluble Packaging<br><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No<br>If "Yes,"<br>Package weight No. per container   | <input type="checkbox"/> Metal<br><input checked="" type="checkbox"/> Plastic<br><input type="checkbox"/> Glass<br><input type="checkbox"/> Paper<br><input type="checkbox"/> Other (Specify) |
| 3. Location of Net Contents Information<br><input type="checkbox"/> Label <input checked="" type="checkbox"/> Container                                 | 4. Size(s) of Retail Container<br>100 gal. minibulk  |   |   |
| 5. Location of Label Directions<br><input checked="" type="checkbox"/> On Label<br><input checked="" type="checkbox"/> On material accompanying product |  | 6. Manner in Which Label Is Affixed To Product<br><input type="checkbox"/> Lithograph<br><input type="checkbox"/> Paper glued<br><input type="checkbox"/> Stenciled<br><input checked="" type="checkbox"/> Other (Specify)<br>Vinyl glued |   |

## Section IV

|  |   |                                      |
|--|---|--------------------------------------|
| 1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application).  |   | 5. Date Application Received (Stamp) |
| Name<br>Kevin F. Cannon, Ph.D.   |   |                                      |
| Title<br>Manager, Agricultural Affairs   | Telephone No. (Include Area Code)<br>(202) 783-2460 |                                      |
| Certification<br>I certify that the statements I have made on this form and all attachments thereto are true, accurate, and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine of imprisonment or both under applicable law. |   |                                      |
| 2. Signature<br>   | 3. Title<br>Senior Registration Specialist          | 96                                   |
| 4. Typed Name<br>Sheila A. Schuette, Ph.D.   | 5. Date Signed<br>6/5/91                            |                                      |

# Monsanto

Monsanto Company  
Suite 1100  
700 14th Street, N.W.  
Washington, D.C. 20005

June 4, 1991

Document Processing Center (AMEND)  
Office of Pesticide Programs - H7504C  
U.S. Environmental Protection Agency  
1921 Jefferson Davis Highway  
Crystal Mall #2, Room 226A  
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor  
Product Manager (25)

Subject: MON-35085 RT Herbicide (EPA Reg. No. 524-445)  
Request for Alternate Formulation / Submission of Alternate CSF

Dear Sir:

On March 18, 1991, the Agency approved MON-35085 RT as an additional brand name for MON-35085. MON-35085 RT will be selectively marketed in agricultural areas that practice reduced or limited tillage for moisture and soil conservation. In order to differentiate MON-35085 RT from MON-35085, Monsanto now requests that an alternate formulation be approved. This alternate formulation is identical to that which was approved for MON-35085, except that a small amount of [REDACTED] has been replaced with a [REDACTED].

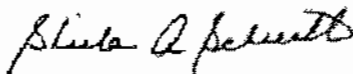
A Confidential Statement of Formula, which contains [REDACTED] is attached for your review and approval.

An Application for Pesticide Amendment and Certification with Respect to Citation of Data and General Offer to Pay are also enclosed.

\*Inert ingredient information may be entitled to confidential treatment\*

If you have any questions regarding this request, please contact Dr. Kevin Cannon or me.

Sincerely,



Sheila A. Schuette, Ph.D.  
Senior Registration Specialist  
(314) 694-7248

cc: R.P. Schneider  
K.F. Cannon  
R.W. Street  
D.E. Wolfersberger

CERTIFICATION WITH RESPECT TO CITATION OF DATA

EPA File Symbol/Reg. No. 524-445 Date of Application June 4, 1991

Name of Product MON-35085 RT

Applicant's Name and Address Monsanto Company

Suite 1100

700 14th Street, N.W.

Washington, D.C. 20005

1. This application is supported by all data submitted or cited in the application. In addition, if cite-all options are indicated, this application is supported by all data in the Agency's files that concern the properties and effects of this product or of any other product that is identical or substantially similar, and that is one of the types of data that would be required to be submitted if this application sought the initial registration of a product of identical or similar composition and intended uses under the data requirements in effect on the date of approval of this application.

2. I certify that, for each study cited in support of this application for registration that is an exclusive use study, I have obtained the written permission of the original data submitter to cite that study.

3. I certify that, for each study cited in support of this application for registration that is not an exclusive use study:

I have obtained the written permission of the original data submitter to cite that study; or

I have notified in writing the companies who have submitted data I have cited to support those applications and have offered to: (a) .P compensation for those data in accordance with section 3(c)(1)(D) and 3(c)(2)(D) of the Federal Insecticide, Fungicide and Rodenticide Act; and (b) Commence negotiations to determine which data are subject to the compensation requirements of FIFRA and the amount and terms of compensation due, if any. The companies I have notified are: (Check one)

☐ All companies listed on the Pesticide Data Submitters List for all active ingredients contained in my product (Cite-all method or cite-all option under Selective Method). (Also sign the General Offer to Pay Statement below).

☒ Monsanto Company has submitted the studies which I have cited (Selective Method).

Date June 4, 1991

Signature Shula A. Schmitt

Title Senior Registration Specialist

General Offer to Pay: I hereby offer and agree to pay compensation to other persons, with regard to the approval of this application, to the extent required by FIFRA sec. 3(c)(1)(D) and 3(c)(2)(D).

Date June 4, 1991

Signature Shula A. Schmitt

Title Senior Registration Specialist

18

Dr. Sheila A. Schuette  
Monsanto Company  
700 14th Street NW., Suite 1100  
Washington, DC 20005

Dear Dr. Schuette:

Subject: MON-35085 (Control of Canada Thistle in Ohio)  
EPA Registration No. 524-445  
Your Application Dated February 4, 1991

The labeling referred to above submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act as amended is acceptable. Please submit five (5) copies of your final printed labeling before you release the product for shipment. A stamped copy of labeling is enclosed for your records.

Sincerely yours,

Robert J. Taylor  
Product Manager (25)  
Fungicide-Herbicide Branch  
Registration Division (H7505C)

Enclosure

54426:I:Walters:L25-1:KEVRIC:03/04/91:13/08/91:TK:DD

| CONCURRENCES |          |  |  |  |  |  |     |
|--------------|----------|--|--|--|--|--|-----|
| SYMBOL       | H7505C   |  |  |  |  |  | 100 |
| SURNAME      | McWalter |  |  |  |  |  |     |
| DATE         | 3/18/91  |  |  |  |  |  |     |

EPA Form 1320-1 (12-70)

OFFICIAL FILE COPY



# Monsanto

Monsanto Company  
Suite 1100  
700 14th Street, N.W.  
Washington, D.C. 20005

February 14, 1991

Document Processing Center (Amend)  
Office of Pesticide Programs - H7504C  
U.S. Environmental Protection Agency  
1921 Jefferson Davis Highway  
Crystal Mall #2, Room 226A  
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor  
Product Manager (25)

Subject: **MON-35085 Herbicide (EPA Reg. No. 524-445)**  
**Supplemental Label: Control of Canada Thistle in Ohio**

Dear Sir:

Enclosed for Agency review and approval are five (5) copies of a supplemental MON-35085 herbicide label. This supplemental label provides more specific guidance on the use of MON-35085 herbicide for the control of Canada Thistle in Ohio. The use instructions include details on the use of surfactants, ammonium sulfate, and timing of application.

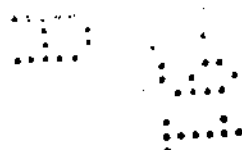
An Application for Pesticide Amendment and Certification with Respect to Citation of Data and General Offer to Pay are enclosed.

If you have any questions regarding this request, please contact Dr. Kevin Cannon or me.

Sincerely,



Sheila A. Schuette, Ph.D.  
Senior Registration Specialist  
(314) 694-7248



10

FRONT

BASE

# Roundup

## SuperConcentrate

by Monsanto

# Grass & Weed Killer

- COVERS 25,200 SQUARE FEET • DOES NOT HAVE SOIL ACTIVITY
- KILLS LABELED ANNUAL AND PERENNIAL GRASSES, WEEDS AND SEDGES
- SYSTEMIC ACTION — KILLS ROOTS AND ALL
- SUITABLE FOR USE AROUND FLOWER BEDS, TREES, SHRUBS, FENCES AND DRIVEWAYS
- USE TO PREPARE GARDEN SITES
- MIX 3 TO 5 TABLESPOONS (1/4 TO 2/4 OZ) PER GALLON

Read the entire label before using this product.  
Use only according to label instructions.

NOTICE: BUYER ASSUMES ALL RESPONSIBILITY FOR  
SAFETY AND USE NOT IN ACCORDANCE WITH DIREC-  
TIONS IF THESE TERMS ARE NOT ACCEPTABLE.  
RETURN AT ONCE UNOPENED

Keep out of reach of children.

**WARNING!** Read precautions  
on back panel

#### ACTIVE INGREDIENT

Glyphosate, in (monophosphonate) hydrochloride  
in the form of its mono-ammonium salt ... 41.0%

INERT INGREDIENTS ... 59.0%

100.0%

### NET 1 GAL

897.17-000.32-1

## ACCEPTED

APR - 2 1992

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act,  
as amended, for the pesticide  
tolerance under  
EPA Reg. No. 524.445

Carefully read and follow detailed instructions in pamphlet.

#### PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Keep out of reach of children.

#### WARNING!

CAUSES SUBSTANTIAL BUT TEMPORARY EYE INJURY. HARMFUL IF  
INHALED. Do not get in eyes or breathe spray mist or get in or on  
clothing. Wear goggles, face shield or safety glasses. Wash thoroughly  
with soap and water after handling. Remove contaminated clothing and  
wash before reuse.

FIRST AID: IF IN EYES, hold eyelids open and flush with plenty of water. Get medical attention.

IF INHALED, remove victim to fresh air. If not breathing, give artificial respiration, preferably  
mouth-to-mouth. Get medical attention.

IF SWALLOWED, drink promptly a large quantity of milk, egg whites, or gelatin solution. If these  
are not available drink large quantities of water. Get medical attention.

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

#### Environmental Hazards

Do not apply directly to water, to areas where surface water is present, or to intertidal areas below  
the mean high water mark. Do not contaminate water when cleaning or equipment washwaters.

#### Physical or Chemical Hazards

Spray solutions of this product should be mixed, moved and applied only in stainless steel,  
aluminum, fibreglass, plastic and plastic-lined steel containers. DO NOT MIX, STORE OR APPLY  
THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED  
STEEL (EXCEPT STAINLESS STEEL CONTAINERS OR SPRAY TANKS).

(See additional precautions inside Pamphlet.)

#### Storage and Disposal

Do not contaminate water, food, feed or seed by storage or disposal.

STORAGE: Store this product in its original container and in a secured storage area.

In case of SPILL or LEAK, soak up with paper towels and discard in trash.

DISPOSAL: To dispose of unused product, seal securely in original container in several layers of  
newspaper and discard in trash.

Empty container retains vapor and product residue. Observe all labeled precautions until container  
is discarded.

Do not reuse container. Rinse thoroughly before discarding in trash.

This product is protected by U.S. Patent No. 4,495,531. Other patents pending. No license granted  
under any non-U.S. patent(s).

© Trademark of Monsanto Company

© MONSANTO COMPANY 1992

MONSANTO COMPANY • AGRICULTURAL PRODUCTS • ST. LOUIS, MISSOURI 63167 U.S.A.

EPA Est. 524-LB-1

EPA Reg. No. 524-445

897.17-000.32-1L

# FINAL PROOF

KEEP PEOPLE AND PETS OFF TREATED AREAS UNTIL SPRAY SOLUTION HAS DRIED.

**DOMESTIC ANIMALS:** This product is considered to be relatively nontoxic to dogs and other domestic animals. However, ingestion of this product or large amounts of freshly sprayed vegetation may result in temporary gastrointestinal irritation (vomiting, diarrhea, colic, etc.) If such symptoms are observed, provide the animal with plenty of fluids to prevent dehydration. Call a veterinarian if symptoms persist for more than 24 hours.

#### ADDITIONAL PRECAUTIONS

DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury. If ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

#### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

Roundup is a nonselective herbicide that is diluted and applied to the foliage of actively growing weeds as a spot or broadcast application. It is absorbed by the leaves and moves throughout the stem and roots to control the entire plant. Visible symptoms may require a week or more to appear, with burn-down usually occurring in 2 to 4 weeks. Symptoms are a gradual wilting and yellowing of the sprayed plant followed by deterioration of both shoots and roots. This product has no herbicidal activity in the soil and will not wash or leach to affect nearby vegetation.

PROOF  
OR PURCHASE

This product controls many weeds around buildings, vacant lots, storage and recreational areas, gravel or ground bark mulch, shade trees, ornamentals and shrubs; along fences, sidewalks, driveways and patios; and prior to planting turfgrasses, shrubs, flower beds or vegetables listed on the label. When used as a spot treatment in lawns, all vegetation contacted will be damaged.

**THIS PRODUCT CAN INJURE OR DESTROY ALL VEGETATION CONTACTED. AVOID SPRAY DRIFT CONTACT WITH DESIRABLE LAWN GRASSES, FLOWERS, VEGETABLES, SHRUBS OR TREES. DO NOT CONTACT GREEN BARK OF TREES OR SHRUBS. IF DESIRABLE VEGETATION IS CONTACTED, WASH IMMEDIATELY WITH WATER.**

For more product information, call toll-free 1-800-225-2883.

#### Storage and Disposal

Do not contaminate water, food, feed or seed by storage or disposal.

##### STORAGE:

Store this product in its original container and in a secured storage area.

In case of SPILL or LEAK, soak up with paper towels and discard in trash.

##### DISPOSAL:

To dispose of unused product, securely wrap original container in several layers of newspaper and discard in trash.

Empty container retains vapor and product residue. Observe all labeled safeguards until container is discarded.

Do not reuse container. Rinse thoroughly before discarding in trash.

#### WEEDS CONTROLLED

When applied as recommended under the conditions described, Roundup controls many common weeds including the following:

##### Annuals

|                       |                   |                  |
|-----------------------|-------------------|------------------|
| Barnyardgrass         | Lettuce, prickly  | Ryegrass, annual |
| Bluegrass, annual     | Mustard, leafy    | Sandbar, field   |
| Chickweed             | Pennycress, field | Shepherdspurse   |
| Cirsium               | Pigweed, redroot, | Sowthistle       |
| Fenell                | smooth            |                  |
| Lambsquarters, common | Ragweed, common   |                  |

##### Perennials

Bahia grass  
Bermudagrass  
Bindweed, field  
Bluegrass, Kentucky  
Bromegrass, smooth  
Clover, red, white

##### Brush

Alder  
Blackberry  
Cherry  
Dewberry  
Elderberry

Dandelion  
Dandelion  
Fescue species  
Fescue, tall  
Johnsongrass  
Nutsedge, purple,  
yellow

Honeysuckle  
Kudzu  
Oak  
Poison Ivy  
Poison Oak

##### Orchardgrass

Quackgrass  
Ryegrass, perennial  
Thistle, Canada  
Timothy  
Vasegrass

Raspberry  
Rose, multiflora  
Sumac  
Trumpet creeper  
Willow

#### MIXING AND SPRAYING

Do not apply this product through any type of irrigation system.

**Hand-held Sprayers:** Add 1-1/2 to 2-1/2 fluid ounces (3 to 5 tsp.) of this product to 1 gallon of clean water. Use the higher recommended rate for control of listed perennials and brush. Use pump-up-type or hand-trigger-type sprayers. **USE OF HOSE-END SPRAYERS OR SPRINKLER-TYPE DEVICES MAY RESULT IN POOR AND/OR ERRATIC RESULTS.**

Ensure uniform and complete spray coverage, but do not spray plants to the point that the spray solution runs off. Use a coarse spray. Do not spray during windy conditions, as spray drift may cause damage to any vegetation contacted.

#### WHEN TO APPLY

Apply to vigorously growing plants. Apply to annual weeds anytime after emergence. For best results, apply to perennial weeds after seedheads, flowers or berries appear. On woody brush or trees, apply after leaves have fully expanded. Applications made at less than the recommended stage of growth may result in reduced control. After mowing, clipping or tilling, allow weeds to regrow to the recommended growth stage before spraying this product.

Refrain from watering within 4 hours after application can wash the product off plant foliage which may require retreatment. Delay mowing, clipping, tilling, planting or sodding of treated areas for at least 7 days after application. This allows time for this product to move within the plant for most effective results. **SINCE THIS PRODUCT DOES NOT WORK IN SOIL, RETREATMENTS WILL BE NECESSARY TO CONTROL NEW WEEDS EMERGING FROM SEED.**

One application will control most weeds listed. Symptoms on certain tough perennial weeds and woody brush and tree species may be slow to develop. If control is not achieved within 4 weeks, allow time for the sprayed weeds to regrow and make a repeat application. In some cases, control of woody brush and trees treated in the fall may not be fully apparent until the following season.

#### LAWN RENOVATION

Best results are obtained when at least one mowing is skipped prior to treatment. This provides more leaf surface to intercept the spray. For areas where renovation and reseeding is desired, thorough spray coverage of all existing vegetation is necessary. Delay planting or sodding of treated areas for at least 7 days after application.

#### ORNAMENTALS

Any ornamental species may be planted in treated areas 7 days or more after application. Apply this product as recommended to control undesirable vegetation growing around ornamentals, trees or shrubs. Avoid spray contact with any desirable plants. To avoid injury on desirable plants, prevent spray or drift contact with foliage, stems or green bark. Do not spray into, or over the top of, growing ornamentals.

#### TREES (Apple, Citrus, Nut, Pear) AND GRAPEVINES

Apply this product to control undesirable plants growing around these trees and vines. Spray contact, other than with mature bark of the main trunk, can injure the tree or vine. Allow 21 days between application and harvest.

104

# **BERRIES, SMALL FRUIT & VEGETABLE GARDENS**

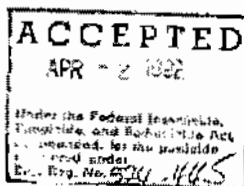
The following vegetables may be planted in treated areas 7 days or more after application: asparagus, beans, beet greens, beets, blackberry, blueberry, boysenberry, broccoli, cabbage, carrot, cauliflower, celery, chives, corn, cranberry, cucumber, currant, dewberry, elderberry, eggplant, garlic, gourds, gooseberry, horehound, huckleberry, Jerusalem artichoke, kale, lentils, lettuce, loganberry, melons, mustard greens, okra, strawberry, onion, parsnip, peas, peppers, turnip and sweet potatoes, pumpkin, radish, raspberry (black, red), rutabagas, spinach, squash (summer, winter), strawberry, tomatoes, tomato, watercress, wintermelon and turnips. In the treated area, do not plant any vegetables not listed on this label for one year following application. Do not apply this product to or around growing vegetables.

\*Use on strawberries is restricted to short seeded varieties only.

## **CLEANING EQUIPMENT**

Thoroughly spray tank and flush all sprayer components with water to remove residue of this product. After thorough cleaning, equipment may be used to apply other products.

This page is intentionally left blank.



In case of an emergency involving this product, Call Collect, day or night, (314) 894-4000.

## **Roundup® Super Concentrate Grass & Weed Killer**

Nonselective herbicide for lawn and garden use. Avoid spray on desirable plants as severe injury or destruction may result. Read "NOTICE" in each paragraph before buying or using. If labels are not accessible, return at once unopened.

**NOTICE, BUYER ASSUMES ALL RESPONSIBILITY FOR SAFETY AND USE NOT IN ACCORDANCE WITH DIRECTIONS IN THIS LABELING.**

REFORMULATION OR REPACKAGING IS PROHIBITED.

### **ACTIVE INGREDIENT:**

\*Glyphosate, N-(phosphonomethyl)glycine.  
In the form of its isopropylamine salt . . . . . 41.0%

**INERT INGREDIENTS:** . . . . . 59.0%

\*Contains 480 grams per liter or 4 pounds per U.S. gallon of glyphosate, N-(phosphonomethyl)glycine, in the form of its isopropylamine salt.

This product is protected by U.S. Patent No. 4,405,531. Other patents pending. No license granted under any non-U.S. patent(s).

©Monsanto Company 1992

MONSANTO COMPANY  
AGRICULTURAL PRODUCTS  
ST. LOUIS, MISSOURI 63167 U.S.A.

## **Leaflet Cover**

Carefully read and follow detailed instructions on pamphlet.

**PHYLOGENETIC STATEMENTS**

Phylogenetic Statements

Keep out of reach of children.

### **WARNING:**

CAUSES IRRITATION, BUT TEMPORARY EYE INJURY. IRRITANT IF SWALLOWED. Do not get in eyes or breathe spray mist or get in or on clothing. Wear goggles, face shield or safety glasses. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse. If swallowed, do not induce vomiting. If on skin, flush with plenty of water. Get medical attention. If swallowed, do not induce vomiting. If on skin, flush with plenty of water. Get medical attention. If swallowed, do not induce vomiting. If on skin, flush with plenty of water. Get medical attention.

For first aid information, see back of this pamphlet. Call Collect, day or night, (314) 894-4000.

### **Environmental Hazards**

Do not apply directly to water, to areas where surface water is present or to adjacent areas where the water may be present. Do not contaminate water when cleaning or refilling equipment.

### **Physical or Chemical Hazards**

Some materials of this product should be stored, stored and applied only in stainless steel, aluminum, bronze, plastic, and plastic-lined metal containers. DO NOT USE STEEL OR ALUMINUM CONTAINERS OR BRASS SOLUTIONS OF THIS PRODUCT IN BRASS CONTAINERS OR UNLINED STEEL PLASTIC CONTAINERS. STEEL CONTAINERS OR SPRAY TANKS.

SEE ADDITIONAL PRECAUTIONS UNDER PAMPHLET (1)

SEE PAMPHLET FOR TREATMENT AND DISPOSAL

This product is produced by U.S. Patent No. 4,405,531. Other patents pending. No license granted under any non-U.S. patent(s).



MONSANTO COMPANY  
AGRICULTURAL PRODUCTS  
ST. LOUIS, MISSOURI 63167 U.S.A.  
EPA Reg. No. 524-1445  
EPA Reg. No. 524-1445

| SUBMISSION REVIEW RECORD      |  |  |  | 1. REGISTRATION NUMBER            |  |                       |  | CYCLE               | 2. DATE RECEIVED      |     |    |
|-------------------------------|--|--|--|-----------------------------------|--|-----------------------|--|---------------------|-----------------------|-----|----|
| 3. 3CID PUBLICATION NECESSARY |  |  |  | 4. PETITION NO.                   |  |                       |  | 5. RECEIVED PM TEAM |                       |     |    |
| 6. METHOD OF SUPPORT          |  |  |  | 7. PRODUCT MANAGER                |  |                       |  | NO.                 | 8. PROJECTED RETURN   |     |    |
| 9. DATE PULLED                |  | 10. DATE PUBLISHED                               |  | 11. ACTION TYPE                   |  |                       |  | CODE                | 12. OUTGOING DATE     |     |    |
| REV. SEQ.                     |  | REVIEW TYPE                                      |  | REVIEWER CODE (Initials)          |  | SIGNATURE OF REVIEWER |  | COM. CODE           | DATE REVIEW COMPLETED |     |    |
| REV. SEQ.                     |  | REVIEW TYPE                                      |  | REVIEWER CODE (Initials)          |  | SIGNATURE OF REVIEWER |  | COM. CODE           | MO                    | DAY | YR |
| 3. 3CID PUBLICATION NECESSARY |  |  |  | 4. PETITION NO.                   |  |                       |  | 5. RECEIVED PM TEAM |                       |     |    |
| 6. METHOD OF SUPPORT          |  |  |  | 7. PRODUCT MANAGER                |  |                       |  | NO.                 | 8. PROJECTED RETURN   |     |    |
| 9. DATE PULLED                |  | 10. DATE PUBLISHED                               |  | 11. ACTION TYPE                   |  |                       |  | CODE                | 12. OUTGOING DATE     |     |    |
| 3/6/91                        |  |  |  | Control of Canada Thistle in Ohio |  |                       |  |                     |                       |     |    |
| REV. SEQ.                     |  | REVIEW TYPE                                      |  | REVIEWER CODE (Initials)          |  | SIGNATURE OF REVIEWER |  | COM. CODE           | DATE REVIEW COMPLETED |     |    |
| REV. SEQ.                     |  | REVIEW TYPE                                      |  | REVIEWER CODE (Initials)          |  | SIGNATURE OF REVIEWER |  | COM. CODE           | MO                    | DAY | YR |
| A                             |  | REVIEWABILITY TEAM                               |  |                                   |  |                       |  |                     |                       |     |    |
| B                             |  | PRODUCT MANAGER TEAM EFFICACY REVIEW             |  |                                   |  |                       |  |                     |                       |     |    |
| C                             |  | PRODUCT MANAGER TEAM HUMAN SAFETY REVIEW         |  |                                   |  |                       |  |                     |                       |     |    |
| D                             |  | PRODUCT MANAGER TEAM ENVIRONMENTAL SAFETY REVIEW |  |                                   |  |                       |  |                     |                       |     |    |
| E                             |  | PRODUCT MANAGER TEAM RESUBMISSION REVIEW         |  |                                   |  |                       |  |                     |                       |     |    |
| F                             |  | PRODUCT MANAGER                                  |  |                                   |  | UNKNOWN NAC           |  |                     | 03                    | 06  | 91 |
| G                             |  | INTERAGENCY REFERRAL                             |  |                                   |  |                       |  |                     |                       |     |    |
| H                             |  | COST-BENEFIT REVIEW                              |  |                                   |  |                       |  |                     |                       |     |    |
| I                             |  | PUBLIC COMMENTS REVIEW                           |  |                                   |  |                       |  |                     |                       |     |    |
| J                             |  | EEE BRANCH INSECTICIDE EFFICACY                  |  |                                   |  |                       |  |                     |                       |     |    |
| K                             |  | EEE BRANCH HERBICIDE EFFICACY                    |  |                                   |  |                       |  |                     |                       |     |    |
| L                             |  | EEE BRANCH FUNGICIDE EFFICACY                    |  |                                   |  |                       |  |                     |                       |     |    |
| M                             |  | EEE BRANCH RODENTICIDE EFFICACY                  |  |                                   |  |                       |  |                     |                       |     |    |
| N                             |  | EEE BRANCH DISINFECTANT EFFICACY                 |  |                                   |  |                       |  |                     |                       |     |    |
| O                             |  | CHEMISTRY BRANCH RESIDUE CHEMISTRY               |  |                                   |  |                       |  |                     |                       |     |    |
| P                             |  | EEE BRANCH ENVIRONMENTAL CHEMISTRY               |  |                                   |  |                       |  |                     |                       |     |    |
| Q                             |  | TOXICOLOGY BRANCH HUMAN SAFETY                   |  |                                   |  |                       |  |                     |                       |     |    |
| R                             |  | EEE BRANCH ENVIRONMENTAL SAFETY                  |  |                                   |  |                       |  |                     |                       |     |    |
| S                             |  |  |  |                                   |  |                       |  |                     |                       |     |    |
| T                             |  |  |  |                                   |  |                       |  |                     |                       |     |    |
| PRODUCT MANAGER SIGNATURE     |  |  |  | TYPE OF RESPONSE                  |  |                       |  | CODE                |                       |     |    |
|                               |  |  |  |                                   |  |                       |  |                     |                       |     |    |


 United States Environmental Protection Agency  
 Office of Pesticide Programs (TS-767)  
 Washington, DC 20460

 Application for Pesticide: ☐ Registration  
☒ Amendment

OPP Identifier Number

140863

## Section I

|   |                              |   |   |
|---|------------------------------|---|---|
| 1. Company/Product Number<br>Monsanto/524-445 | 2. Date<br>February 14, 1991 | 3. Product Manager<br>Robert J. Taylor (25) | 4. Proposed Classification<br><input checked="" type="checkbox"/> General <input type="checkbox"/> Restricted |
|---|------------------------------|---|---|

5. Name and Address of Applicant (Include ZIP Code)

 Monsanto Company  
 Suite 1100  
 700 14th Street, N.W.  
 Washington, D.C. 20005
☐ Check if this is a new address6. Product Name  
MON 35085 Herbicide

## Section II - Amendment Information

|  |                           |
|--|---------------------------|
| 1. Subject<br><input type="checkbox"/> Resubmission in response to Agency letter<br><input type="checkbox"/> Final printed label in response to Agency letter<br><input checked="" type="checkbox"/> Other (explain below) | Date of Letter<br>2/14/91 |
|--|---------------------------|

 Amendment to the Use Instructions: Supplemental label  
 Control of Canada Thistle in Ohio

## Section III

|  |  |   |  |   |  |   |  |
|--|--|---|--|---|--|---|--|
| 1. Material This Product Will Be Packaged In<br>Child-Resistant Packaging<br><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |  | Unit Packaging<br><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No<br>If "Yes,"<br>Unit package wgt. 24 lb. No. per container. 2 |  | Water-Soluble Packaging<br><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No<br>If "Yes,"<br>Package weight No. per container.        |  | 2. Type of Container<br><input type="checkbox"/> Metal<br><input checked="" type="checkbox"/> Plastic<br><input type="checkbox"/> Glass<br><input type="checkbox"/> Paper<br><input type="checkbox"/> Other (Specify)                     |  |
| 3. Location of Net Contents Information<br><input type="checkbox"/> Label <input checked="" type="checkbox"/> Container                          |  | 4. Size(s) of Retail Container<br>1 gal; 2.5 gal; 30 gal; 54 gal  |  | 5. Location of Label Directions<br><input checked="" type="checkbox"/> On Label<br><input checked="" type="checkbox"/> On material accompanying product |  | 6. Manner in Which Label Is Affixed To Product<br><input type="checkbox"/> Lithograph<br><input type="checkbox"/> Paper glued<br><input type="checkbox"/> Stenciled<br><input checked="" type="checkbox"/> Other (Specify)<br>Vinyl glued |  |

## Section IV

|  |  |  |  |
|--|--|--|--|
| 1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application).<br>Name<br>Kevin F. Cannon, Ph.D.<br>Title<br>Manager, Agricultural Affairs<br>Telephone No. (include Area Code)<br>(202) 783-2460 |  |  | 5. Date Application Received (Stamped) |
| Certification<br>I certify that the statements I have made on this form and all attachments thereto are true, accurate, and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.     |  |  |  |
| 2. Signature<br><i>Sheila A. Schuette</i>  |  | 3. Title<br>Senior Registration Specialist |  |
| 4. Typed Name<br>Sheila A. Schuette, Ph.D.   |  | 5. Date Signed<br>2/14/91                  |  |

CERTIFICATION WITH RESPECT TO CITATION OF DATA

EPA File Symbol/Reg. No. 524-445 Date of Application February 14, 1991

Name of Product MON-35085 Herbicide

Applicant's Name and Address Monsanto Company

Suite 1100

700 14th Street, N.W.

Washington, D.C. 20005

1. This application is supported by all data submitted or cited in the application. In addition, if cite-all options are indicated, this application is supported by all data in the Agency's files that concern the properties or effects of this product or of any other product that is identical or substantially similar, and that is one of the types of data that would be required to be submitted if this application sought the initial registration of a product of identical or similar composition and intended uses under the data requirements in effect on the date of approval of this application.

2. I certify that, for each study cited in support of this application for registration that is an exclusive use study, I have obtained the written permission of the original data submitter to cite that study.

3. I certify that, for each study cited in support of this application for registration that is not an exclusive use study:

I have obtained the written permission of the original data submitter to cite that study; or

I have notified in writing the companies who have submitted data I have cited to support those applications and have offered to: (a) Pay compensation for those data in accordance with section 3(c)(1)(D) and 3(c)(2)(D) of the Federal Insecticide, Fungicide and Rodenticide Act; or (b) Commence negotiations to determine which data are subject to the compensation requirements of FIFRA and the amount and terms of compensation due, if any. The companies I have notified are: (Check one)

☐ All companies listed on the Pesticide Data Submitters List for all active ingredients contained in my product (Cite-all method or cite-all option under Selective Method). (Also sign the General Offer to Pay Statement below).

☒ Monsanto Company has submitted the studies which I have cited (Selective Method).

Date February 14, 1991

Signature Shirley A. Schmitt

2/14/91

Title Senior Registration Specialist

General Offer to Pay: I hereby offer and agree to pay compensation to other persons, with regard to the approval of this application, to the extent required by FIFRA sec. 3(c)(1)(D) and 3(c)(2)(D).

Date February 14, 1991

Signature Shirley A. Schmitt

2/14/91

Title Senior Registration Specialist

107

## SUPPLEMENTAL LABELING

READ AND FOLLOW THE ENTIRE LABEL FOR MON-35085 HERBICIDE BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labeling refers to the label for MON-35085 herbicide and this supplement.

**MON-35085**  
**Herbicide by Monsanto**

EPA Reg. No. 524-445

---

FOR DISTRIBUTION AND USE ONLY WITHIN OHIO.

FOR CONTROL OF CANADA THISTLE.

---

Keep out of reach of children.

### WARNING!

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

---

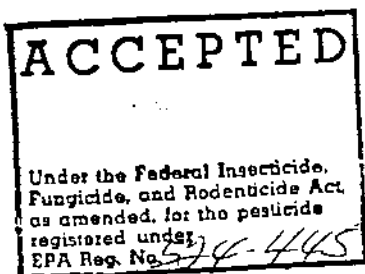
### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with the labeling.

This supplemental labeling and the label booklet for MON-35085 must be in the possession of the user at the time of herbicide application.

AVOID CONTACT WITH FOLIAGE, GREEN STEMS, OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, SINCE SEVERE INJURY OR DESTRUCTION MAY RESULT.

See "GENERAL INFORMATION", "APPLICATION EQUIPMENT AND TECHNIQUES" and "CROPPING SYSTEMS" sections of the label booklet for MON-35085 for essential product information.





## RECOMMENDATIONS.

### FOR CONTROL:

Apply 1 quart per acre of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 5 to 10 gallons of water per acre.

The addition of ammonium sulfate at the rate of 17 pounds per 100 gallons of spray solution is recommended for enhanced performance under stress conditions.

In the spring, apply to actively growing thistles when most are at or beyond the bud stage of growth.

After harvest, mowing or tillage in the late summer or fall, allow at least 4 weeks for initiation of active growth. Rosette size must be a minimum of 6 inches in diameter before treating.

Applications can be made in the fall as long as leaves are still green, and plants are actively growing at the time of application.

Allow 3 or more days after application before tillage. For best results, till the area within 14 days after application.

### FOR SUPPRESSION WITH SPRING APPLICATIONS:

Apply 1 pint to 1 quart of this product per acre plus 0.5 to 1 percent nonionic surfactant by total spray volume in 5 to 10 gallons of water per acre. Apply to actively growing plants that are at least 8 inches tall.

The addition of ammonium sulfate at the rate of 17 pounds per 100 gallons of spray solution is recommended for enhanced performance under stress conditions.

For improved burndown and to control other broadleaf weeds, mix this product with 0.5 pound a.i. 2,4-D per acre. Applications of 2,4-D must be made at least 7 days prior to planting corn and at least 30 days prior to planting soybeans.

Allow 3 or more days after application before tillage. A subsequent cultivation may enhance control.

---

Read the "LIMIT OF WARRANTY AND LIABILITY" in the label booklet for MON-35085 before using this product. Those terms apply to this supplemental labeling and if those terms are not acceptable, return the product unopened at once.

---

©MONSANTO COMPANY 1991

MAP-3171

MONSANTO COMPANY  
AGRICULTURAL PRODUCTS  
ST. LOUIS, MISSOURI 63167

Dr. Sheila A. Schuette  
Monsanto Company  
700 14th Street NW., Suite 1100  
Washington, DC 20005

Dear Dr. Schuette:

Subject: MON-35085 Herbicide (Weed Control in Passion Fruit)  
EPA Registration No. 524-445  
Your Application Dated February 14, 1991

The amendment referred to above, submitted in connection with registration under section 3(c)(7)(A) of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), is acceptable provided that you:

1. Submit/cite all data required for registration/reregistration of your product under FIFRA section 3(c)(5) and section 4 when the Agency requires all registrants of similar products to submit such data.
2. Submit five (5) copies of your final printed labeling before you release the product for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Sincerely yours,

Robert J. Taylor  
Product Manager (25)  
Fungicide-Herbicide Branch  
Registration Division (H7505C)

Enclosure

54426:I:CR-43:Walters:L25-1:KEVRIC:03/04/91:13/08/91:TK:DD

| CONCURRENCES |              |  |  |  |  |  |  |  |
|--------------|--------------|--|--|--|--|--|--|--|
| SYMBOL       | H7505C       |  |  |  |  |  |  |  |
| SURNAME      | V. K. Kuller |  |  |  |  |  |  |  |
| DATE         | 3/15/91      |  |  |  |  |  |  |  |

# Monsanto

---

**MONSANTO AGRICULTURAL COMPANY**

800 N. Lindbergh Boulevard  
St. Louis, Missouri 63167  
Phone: (314) 694-1000

February 14, 1991

Document Processing Center (Amend)  
Office of Pesticide Programs - H7504C  
U.S. Environmental Protection Agency  
1921 Jefferson Davis Highway  
Crystal Mall #2, Room 226A  
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor  
Product Manager (25)

Subject: **MON-35085 Herbicide (EPA Reg. No. 524-445)**  
**Supplemental Label: Weed Control in Passion Fruit**

Dear Sir:

Enclosed for Agency review and approval are five (5) copies of a supplemental label for MON-35085 herbicide use in passion fruit. The tolerance for this crop was established and published in the 27 November 1989 Federal Register (Vol. 54, No. 226, pp. 48743-4) and is represented as a tropical fruit. Directions for use are included in this supplemental label.

An Application for Pesticide Amendment and Certification with Respect to Citation of Data and General Offer to Pay are enclosed.

If you have any questions regarding this request, please contact Dr. Kevin Cannon or me.

Sincerely,



Sheila A. Schuette, Ph.D.  
Senior Registration Specialist  
(314) 694-7248

## SUPPLEMENTAL LABELING

READ AND FOLLOW THE ENTIRE LABEL FOR MON-35085 HERBICIDE BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labeling refers to the label for MON-35085 herbicide and this supplement.

MON-35085  
Herbicide by Monsanto

EPA Reg. No. 524-445

---

FOR DISTRIBUTION AND USE ONLY WITHIN HAWAII.  
FOR NONSELECTIVE WEED CONTROL IN AND AROUND  
PASSION FRUIT.

---

Keep out of reach of children.

### WARNING!

In case of an emergency involving this product, Call Collect,  
day or night, (314) 694-4000.

---

### DIRECTIONS FOR USE

---

It is a violation of Federal law to use this product in a manner inconsistent with the labeling.

This supplemental labeling and the label booklet for MON-35085 must be in the possession of the user at the time of herbicide application.

AVOID CONTACT WITH FOLIAGE, GREEN STEMS, OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, SINCE SEVERE INJURY OR DESTRUCTION MAY RESULT.

See "GENERAL INFORMATION", "APPLICATION EQUIPMENT AND TECHNIQUES" and "WEEDS CONTROLLED" sections of the label booklet for MON-35085 for essential product information.

### RECOMMENDATIONS

This product is recommended for weed control in and around established passion fruit, or for site preparation prior to planting or transplanting. Applications may be made with boom

ACCEPTED

18  
Under the Federal Insecticide,  
Fungicide, and Rodenticide Act,  
as amended, for the pesticide  
registered under  
EPA Reg. No. 524-445

equipment; CDA, shielded sprayers, hand-held and high-volume wands, lances, orchard guns or with wiper applicator equipment.

When applying this product refer to the "Weeds Controlled" section of the label booklet for MON-35085 for weeds controlled and specific rates to be used.

Allow a minimum of 14 days between last application and harvest.

Annual Weed Control--Apply 8 to 48 fluid ounces of this product per acre plus 0.5 to 1 percent nonionic surfactant in 3 to 10 gallons of water per acre as directed in the "Low-Volume Broadcast Application" section of the label booklet for MON-35085.

When using water volumes of 10 to 40 gallons per acre, apply 1 quart per acre if annual weeds are less than 6 inches tall. If weeds are greater than 6 inches tall, use 1.5 quarts of this product per acre.

Perennial Weed Control--Apply 3 to 5 quarts of this product per acre. Apply when weeds are actively growing and most have reached the early head or early bud stage of growth. Allow 7 or more days after application before mowing or tillage operations.

---

Read the "LIMIT OF WARRANTY AND LIABILITY" in the label booklet for MON-35085 before using this product. Those terms apply to this supplemental labeling and if those terms are not acceptable, return the product unopened at once.

---

©MONSANTO COMPANY 1991

MAP-3167

MONSANTO COMPANY  
AGRICULTURAL PRODUCTS  
ST. LOUIS, MISSOURI 63167

| SUBMISSION REVIEW RECORD  |                  |  |                          | 1. REGISTRATION NUMBER              |                | CYCLE                 | 2. DATE RECEIVED    |      |  |
|---|------------------|--|--------------------------|-------------------------------------|----------------|-----------------------|---------------------|------|--|
| 3. 3CID PUBLICATION NECESSARY   |                  |  |                          | 4. PETITION NO.                     |                |                       | 5. RECEIVED PM TEAM |      |  |
| 5. METHOD OF SUPPORT  |                  |  |                          | 7. PRODUCT MANAGER                  |                |                       | 8. PROJECTED RETURN |      |  |
| 9. DATE PULLED  |                  | 10. DATE PUBLISHED                               |                          | 11. ACTION TYPE                     |                |                       | 12. OUTGOING DATE   |      |  |
| <input type="checkbox"/> YES <input type="checkbox"/> NO                            |                  |  |                          |                                     |                |                       |                     |      |  |
| <input type="checkbox"/> 2A <input type="checkbox"/> 2B <input type="checkbox"/> 2C |                  |  |                          |                                     |                |                       |                     |      |  |
| 2/6/91  |                  |  |                          | Supplemental for petition fruit 330 |                |                       |                     |      |  |
| REV. SEQ.   | REVIEW TYPE CODE | REVIEW TYPE                                      | REVIEWER CODE (Initials) | SIGNATURE OF REVIEWER               | COM. MEN. CODE | DATE REVIEW COMPLETED |                     |      |  |
|   | A                | REVIEWABILITY TEAM                               |                          |                                     |                |                       |                     |      |  |
|   | B                | PRODUCT MANAGER TEAM EFFICACY REVIEW             |                          |                                     |                |                       |                     |      |  |
|   | C                | PRODUCT MANAGER TEAM HUMAN SAFETY REVIEW         |                          |                                     |                |                       |                     |      |  |
|   | D                | PRODUCT MANAGER TEAM ENVIRONMENTAL SAFETY REVIEW |                          |                                     |                |                       |                     |      |  |
|   | E                | PRODUCT MANAGER TEAM RESUBMISSION REVIEW         |                          |                                     |                |                       |                     |      |  |
|   | F                | PRODUCT MANAGER                                  |                          | UKW                                 | NAC            | 0/3                   | 0/8                 | 9/1  |  |
|   | G                | INTERAGENCY REFERRAL                             |                          |                                     |                |                       |                     |      |  |
|   | H                | COST-BENEFIT REVIEW                              |                          |                                     |                |                       |                     |      |  |
|   | I                | PUBLIC COMMENTS REVIEW                           |                          |                                     |                |                       |                     |      |  |
|   | J                | EEE BRANCH INSECTICIDE EFFICACY                  |                          |                                     |                |                       |                     |      |  |
|   | K                | EEE BRANCH HERBICIDE EFFICACY                    |                          |                                     |                |                       |                     |      |  |
|   | L                | EEE BRANCH FUNGICIDE EFFICACY                    |                          |                                     |                |                       |                     |      |  |
|   | M                | EEE BRANCH RODENTICIDE EFFICACY                  |                          |                                     |                |                       |                     |      |  |
|   | N                | EEE BRANCH DISINFECTANT EFFICACY                 |                          |                                     |                |                       |                     |      |  |
|   | O                | CHEMISTRY BRANCH RESIDUE CHEMISTRY               |                          |                                     |                |                       |                     |      |  |
|   | P                | EEE BRANCH ENVIRONMENTAL CHEMISTRY               |                          |                                     |                |                       |                     |      |  |
|   | Q                | TOXICOLOGY BRANCH HUMAN SAFETY                   |                          |                                     |                |                       |                     |      |  |
|   | R                | EEE BRANCH ENVIRONMENTAL SAFETY                  |                          |                                     |                |                       |                     |      |  |
|   | S                |  |                          |                                     |                |                       |                     |      |  |
|   | T                |  |                          |                                     |                |                       |                     |      |  |
| PRODUCT MANAGER SIGNATURE   |                  |  |                          | TYPE OF RESPONSE                    |                |                       |                     | CODE |  |
|   |                  |  |                          |                                     |                |                       |                     |      |  |



United States Environmental Protection Agency  
Office of Pesticide Programs (TS-767)  
Washington, DC 20460

Application for Pesticide: ☐ Registration  
☒ Amendment

OPP Identifier Number

140868

## Section I

1. Company/Product Number  
Monsanto/524-445

2. Date  
February 14, 1991

3. Product Manager  
Robert J. Taylor (25)

4. Proposed Classification  
☒ General ☐ Restricted

5. Name and Address of Applicant (Include ZIP Code)

Monsanto Company  
Suite 1100  
700 14th Street, N.W.  
Washington, D.C. 20005

☐ Check if this is a new address

6. Product Name  
MON 35085 Herbicide

## Section II - Amendment Information

1. Subject  
☐ Resubmission in response to Agency letter  
☐ Final printed label in response to Agency letter  
☒ Other (explain below)

Date of Letter  
2/14/91

Amendment to Use Instructions: Supplemental label  
Weed control in passion fruit

## Section III

1. Material This Product Will Be Packaged In

Child-Resistant Packaging  
☐ Yes ☒ No

Unit Packaging  
☒ Yes ☐ No  
If "Yes,"  
Unit package wgt No. per container  
24 lb. 2

Water-Soluble Packaging  
☐ Yes ☒ No  
If "Yes,"  
Package weight No. per container

2. Type of Container  
☒ Metal  
☐ Plastic  
☐ Glass  
☐ Paper  
☐ Other (Specify)

3. Location of Net Contents information  
☐ Label ☒ Container

4. Size(s) of Retail Container  
1 gal; 2.5 gal; 30 gal; 54 gal

5. Location of Label Directions  
☒ On Label  
☒ On material accompanying product

6. Manner in Which Label Is Affixed To Product  
☐ Lithograph  
☐ Paper glued  
☐ Stenciled  
☒ Other (Specify)  
Vinyl glued

## Section IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application).

Name  
Kevin F. Cannon, Ph.D.

Title  
Manager, Agricultural Affairs

Telephone No. (Include Area Code)  
(202) 783-2460

6. Date Application Received (Stamp)

Certification  
I certify that the statements I have made on this form and all attachments thereto are true, accurate, and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

2. Signature  
Sheila A. Schuette

3. Title  
Senior Registration Specialist

4. Typed Name  
Sheila A. Schuette, Ph.D.

5. Date Signed  
2/14/91



# Paperwork Reduction Act Notice and Instructions

## Paperwork Reduction Act Notice

Public reporting burden for this collection of information is estimated to average of 0.85 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

## Instructions

### General

This form is to be used for all applications for new and amended registrations for pesticide products.

In order to process an application for new registration submitted on this form, the following material must accompany the application:

1. Offer to Pay Statement (EPA Form 8570-27, -28, -29). (If not exempted by 40 CFR 162.9-1(b).)
2. Confidential Statement of Formula (EPA Form 8570-4).
3. Five copies of draft labeling.
4. Three copies of any data submitted.

**Submission of Labeling** - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8 1/2 x 11 inch paper or as a mockup of the proposed label. If prepared as a mockup it should be constructed in such a way as to facilitate storage in an 8 1/2 x 11 inch file. Mockup labels significantly smaller than 8 1/2 x 11 inches should be mounted on 8 1/2 x 11 inch paper for submission.

**Submission of Data** - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

### Specific

Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Section I, III, and IV must be completed by the applicant. For applications submitted in connection with amended registration actions, Section I, II, and IV must be completed by the applicant.

**Block A** - Check the appropriate action for which you are submitting this form.

**Section I** - This Section must be completed for both Registration and Amended Registration actions.

1. **Company/Product Number** - Insert your company number, if one has been assigned. This number may have been assigned to you as a basic registrant, a distributor, or as an establishment. If application is for an amendment, insert the registration number of the product.
2. **Date** - Fill in the appropriate date.
3. **Product Manager** - If known, fill in the name and number of the Product Manager.
4. **Proposed Classification** - Specify the proposed classification for this product.
5. **Name and Address of Applicant** - The name of the firm or person and address shown in your application is the person or firm to whom registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration matters.

An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.

6. **Product Name** - Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.

### Amendment Information

**Section II** - This Section must be completed for all applications submitted in connection with Amended Registration.

1. **Subject of Amendment** - Check the appropriate block, and provide a brief explanation of the purpose(s) for the amendment, such as: "the addition of a site, pest, or crop"; "to change inert ingredient"; "general label revisions of precautionary statements," etc.

### Packaging and Container Information

**Section III** - This Section must be completed for all applications submitted in connection with New Registration.

1. **Type of Packaging** - Check the appropriate block if your product will be packaged in the indicated packaging types. Indicate the size of the individual packets and number per retail container.
2. **Type of Retail Container** - Indicate type of container in which product will be marketed.
3. **Location of Net Contents** - Specify the net contents of all retail containers for your product.
4. **Size(s) of Retail Container** - Specify the net contents of all retail containers for your product.
5. **Location of Use Directions** - Indicate the location of the use directions for your product.
6. **Manner in which Label is affixed to product** - Indicate the method product labeling is attached to retail container.

### Contact Point

**Section IV** - This Section must be completed for all Registration and Amended Registration applications.

- 1-5. Self-explanatory.
6. EPA Use Only.

CERTIFICATION WITH RESPECT TO CITATION OF DATA

EPA File Symbol/Reg. No. 524-445 Date of Application February 14, 1991

Name of Product MON-35085 Herbicide

Applicant's Name and Address Monsanto Company

Suite 1100

700 14th Street, N.W.

Washington, D.C. 20005

1. This application is supported by all data submitted or cited in the application. In addition, if cite-all options are indicated, this application is supported by all data in the Agency's files that concern the properties or effects of this product or of any other product that is identical or substantially similar, and that is one of the types of data that would be required to be submitted if this application sought the initial registration of a product of identical or similar composition and intended uses under the data requirements in effect on the date of approval of this application.

2. I certify that, for each study cited in support of this application for registration that is an exclusive use study, I have obtained the written permission of the original data submitter to cite that study.

3. I certify that, for each study cited in support of this application for registration that is not an exclusive use study:

I have obtained the written permission of the original data submitter to cite that study; or

I have notified in writing the companies who have submitted data I have cited to support those applications and have offered to: (a) Pay compensation for those data in accordance with section 3(c)(1)(D) and 3(c)(2)(D) of the Federal Insecticide, Fungicide and Rodenticide Act; and (b) Commence negotiations to determine which data are subject to the compensation requirements of FIFRA and the amount and terms of compensation due, if any. The companies I have notified are: (Check one)

☐ All companies listed on the Pesticide Data Submitters List for all active ingredients contained in my product (Cite-all method or cite-all option under Selective Method). (Also sign the General Offer to Pay Statement below):

☒ Monsanto Company has submitted the studies which I have cited (Selective Method).

Date February 14, 1991

Signature Shirley A. Schwartz 2/14/91

Title Senior Registration Specialist

General Offer to Pay: I hereby offer and agree to pay compensation to other persons, with regard to the approval of this application, to the extent required by FIFRA sec. 3(c)(1)(D) and 3(c)(2)(D).

Date February 14, 1991

Signature Shirley A. Schwartz 2/14/91

Title Senior Registration Specialist

Dr. Sheila A. Schuette  
Monsanto Company  
700 14th Street NW., Suite 1100  
Washington, DC 20005

Dear Dr. Schuette:

Subject: MON-35085 (Add Several Crop and Other Changes)  
EPA Registration No. 524-445  
Your Letter Dated February 14, 1991

The amendment referred to above, submitted in connection with registration under section 3(c)(7)(A) of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), is acceptable provided that you:

1. Submit/cite all data required for registration/reregistration of your product under FIFRA section 3(c)(5) and section 4 when the Agency requires all registrants of similar products to submit such data.
2. Submit five (5) copies of your final printed labeling before you release the product for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Sincerely yours,

Robert J. Taylor  
Product Manager (25)  
Fungicide-Herbicide Branch  
Registration Division (H7505C)

Enclosure  
54426:I:CR-43:Walters:L25-1:KEVRIC:03/04/91:13/08/91:TK:DD

| CONCURRENCES |           |  |  |  |  |  |  |
|--------------|-----------|--|--|--|--|--|--|
| SYMBOL       | H7505C    |  |  |  |  |  |  |
| SURNAME      | RK Walker |  |  |  |  |  |  |
| DATE         | 3/18/91   |  |  |  |  |  |  |

# Monsanto

Monsanto Company  
Suite 1100  
700 14th Street, N.W.  
Washington, D.C. 20005

February 14, 1991

Document Processing Center (AMEND)  
Office of Pesticide Programs - H7504C  
U.S. Environmental Protection Agency  
1921 Jefferson Davis Highway  
Crystal Mall #2, Room 226A  
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor  
Product Manager (25)

Subject: MON-35085 Herbicide (EPA Reg. No. 524-445)  
Label Amendments

Dear Sir:

Enclosed for Agency review and approval are five (5) copies of an amended MON-35085 herbicide label. In addition to several minor wording changes that do not affect product use, the following important revisions have been made:

1. The storage and disposal section in the Directions for Use were changed to refer the user to the container for instructions.
2. The ammonium sulfate rate was changed from 2% to 1 to 2%.
3. The following annual weed species have been added or the rate recommendations have been changed: common chickweed, jointed goatgrass, henbit, annual spurge, red rice, and sprangletop.
4. The following annual weed species have been added to the list of weeds controlled by 12 to 16 fluid oz. of MON-35085 plus 0.25 lb. a.i. of Banvel or 0.5 lb. a.i. of 2,4-D: cocklebur, marestail, morningglory, and smooth pigweed. In addition, the height of several of the weed species controlled have been changed from 6" to 12".

176

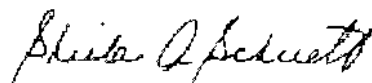
5. A section has been added allowing the use of 16 fluid oz. of MON-35085 plus 0.5 lb. a.i. of 2,4-D to control common ragweed, giant ragweed, Pennsylvania smartweed, and velvetleaf.
6. The High-Volume Broadcast Applications section has been amended to include the addition of nonionic surfactant.
7. The following perennial weeds have been added: water bermudagrass, red vine, leafy spurge, and trumpet creeper.
8. The Perennial Weeds section has been modified to incorporate the tank mix recommendations into the individual species recommendations. This places all recommendations for a particular weed in a single section.
9. The field bindweed recommendation has been modified to allow a rate change for California.
10. The nutsedge recommendation has been modified.
11. For preemergence weed control in noncrop applications, the user is referred to the individual product labels for rate recommendations.
12. The Ornamentals section has been modified to allow use around all ornamentals rather than only those listed on the label.
13. The following crops have been added: breadfruit, canistel, dates, jaboticaba, jackfruit, longan, lychee, passion fruit, persimmons, sapodilla, sapote, soursop, tamarind, pummelo, tangors, and chestnuts.
14. The Ecofarming Systems section, which has been approved for Roundup®, is included in this label.
15. The Minimum Tillage Systems section has been renamed Conservation Tillage, Minimum Tillage and No-Till Systems and has been revised:
  - a. Tank mixtures are allowed with most residual corn and soybean herbicides.
  - b. Mixtures with 2,4-D prior to corn and 2,4-D or 2,4-DB prior to soybeans are allowed for improved burndown.
  - c. Additional surfactant is required and ammonium sulfate is encouraged for tank mixtures.
  - d. MON-35085 rates for tank mixtures have been modified.
16. The Preharvest Applications section has been revised:

- a. Tank mixtures with Prep or Prep plus Def or Folex are allowed.
  - b. A claim of possible enhancement of cotton leaf drop and regrowth inhibition is included.
17. The revised Tree and Vine Crops section, which has been approved for Roundup®, has been included.
18. A recommendation for the control of goatweed has been added to the Low Volume Application (Florida and Texas) section.

Monsanto requests that the Agency approve this label amendment. An Application for Pesticide Amendment and Certification with Respect to Citation of Data and General Offer to Pay are enclosed.

If you have any questions regarding this request, please contact Dr. Kevin Cannon or me.

Sincerely,



Sheila A. Schuette, Ph.D.  
Senior Registration Specialist  
(314) 694-7248

cc: R.P. Schneider  
K.F. Cannon  
Fred Groya  
I.C. O'Connor



United States Environmental Protection Agency  
Office of Pesticide Programs (TS-767)  
Washington, DC 20460

Application for Pesticide: ☐ Registration  
☒ Amendment

OPP Identifier Number

140870

## Section I

|   |                              |   |   |
|---|------------------------------|---|---|
| 1. Company/Product Number<br>Monsanto/524-445 | 2. Date<br>February 14, 1991 | 3. Product Manager<br>Robert J. Taylor (25) | 4. Proposed Classification<br><input checked="" type="checkbox"/> General <input type="checkbox"/> Restricted |
|---|------------------------------|---|---|

5. Name and Address of Applicant (include ZIP Code)

Monsanto Company  
Suite 1100  
700 14th Street, N.W.  
Washington, D.C. 20005

☐ Check if this is a new address

6. Product Name

MON 35085 Herbicide

## Section II - Amendment Information

|  |                           |
|--|---------------------------|
| 1. Subject<br><input type="checkbox"/> Resubmission in response to Agency letter<br><input type="checkbox"/> Final printed label in response to Agency letter<br><input checked="" type="checkbox"/> Other (explain below) | Date of Letter<br>2/14/91 |
|--|---------------------------|

MON-35085 Herbicide: Label Amendments

## Section III

|   |   |   |   |
|---|---|---|---|
| 1. Material This Product Will Be Packaged In<br>Child-Resistant Packaging<br><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No        | Unit Packaging<br><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No<br>If "Yes,"<br>Unit package wgt. No. per container<br>24 lb. 2   | Water-Soluble Packaging<br><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No<br>If "Yes,"<br>Package weight No. per container | 2. Type of Container<br><input type="checkbox"/> Metal<br><input checked="" type="checkbox"/> Plastic<br><input type="checkbox"/> Glass<br><input type="checkbox"/> Paper<br><input type="checkbox"/> Other (Specify) |
| 3. Location of Net Contents Information<br><input type="checkbox"/> Label <input checked="" type="checkbox"/> Container                                 | 4. Size(s) of Retail Container<br>1 gal; 2.5 gal; 30 gal; 54 gal  |   |   |
| 5. Location of Label Directions<br><input checked="" type="checkbox"/> On Label<br><input checked="" type="checkbox"/> On material accompanying product | 6. Manner in Which Label Is Affixed To Product<br><input type="checkbox"/> Lithograph <input checked="" type="checkbox"/> Other (Specify)<br><input type="checkbox"/> Paper glued<br><input type="checkbox"/> Stenciled Vinyl glued |   |   |

## Section IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application).

Name

Kevin F. Cannon, Ph.D.

Title

Manager, Agricultural Affairs

Telephone No. (Include Area Code)

(202) 783-2460

5. Date Application Received (Sample)

## Certification

I certify that the statements I have made on this form and all attachments thereto are true, accurate, and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

2. Signature

3. Title

Senior Registration Specialist

4. Typed Name

Sheila A. Schuette, Ph.D.

5. Date Signed

2/14/91

# Paperwork Reduction Act Notice and Instructions

## Paperwork Reduction Act Notice

Public reporting burden for this collection of information is estimated to average of 0.85 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

## Instructions

### General

This form is to be used for all applications for new and amended registrations for pesticide products.

In order to process an application for new registration submitted on this form, the following material must accompany the application:

1. Offer to Pay Statement (EPA Form 8570-27, -28, -29). (If not exempted by 40 CFR 162.9-1(b).)
2. Confidential Statement of Formula (EPA Form 8570-4).
3. Five copies of draft labeling.
4. Three copies of any data submitted.

**Submission of Labeling** - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8 1/2 x 11 inch paper or as a mockup of the proposed label. If prepared as a mockup it should be constructed in such a way as to facilitate storage in an 8 1/2 x 11 inch file. Mockup labels significantly smaller than 8 1/2 x 11 inches should be mounted on 8 1/2 x 11 inch paper for submission.

**Submission of Data** - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

### Specific

Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Section I, III, and IV must be completed by the applicant. For applications submitted in connection with amended registration actions, Section I, II, and IV must be completed by the applicant.

**Block A** - Check the appropriate action for which you are submitting this form.

**Section I** - This Section must be completed for both Registration and Amended Registration actions.

1. **Company/Product Number** - Insert your company number, if one has been assigned. This number may have been assigned to you as a basic registrant, a distributor, or as an establishment. If application is for an amendment, insert the registration number of the product.
2. **Date** - Fill in the appropriate date.
3. **Product Manager** - If known, fill in the name and number of the Product Manager.
4. **Proposed Classification** - Specify the proposed classification for this product.
5. **Name and Address of Applicant** - The name of the firm or person, and address shown in your application is the person or firm to whom registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration matters.

An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.

6. **Product Name** - Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.

### Amendment Information

**Section II** - This Section must be completed for all applications submitted in connection with Amended Registration.

1. **Subject of Amendment** - Check the appropriate block, and provide a brief explanation of the purpose(s) for the amendment, such as: "the addition of a site, pest, or crop"; "to change inert ingredient"; "general label revisions of precautionary statements," etc.

### Packaging and Container Information

**Section III** - This Section must be completed for all applications submitted in connection with New Registration.

1. **Type of Packaging** - Check the appropriate block if your product will be packaged in the indicated packaging types. Indicate the size of the individual packets and number per retail container.
2. **Type of Retail Container** - Indicate type of container in which product will be marketed.
3. **Location of Net Contents** - Specify the net contents of all retail containers for your product.
4. **Size(s) of Retail Container** - Specify the net contents of all retail containers for your product.
5. **Location of Use Directions** - Indicate the location of the use directions for your product.
6. **Manner in which label is affixed to product** - Indicate the method product labeling is attached to retail container.

### Contact Point

**Section IV** - This Section must be completed for all Registration and Amended Registration applications.

- 1-5. Self-explanatory.
6. EPA Use Only.



# CERTIFICATION WITH RESPECT TO CITATION OF DATA

EPA File Symbol/Reg. No. 524-445 Date of Application February 14, 1991

Name of Product MON-35085 Herbicide

Applicant's Name and Address Monsanto Company

Suite 1100

700 14th Street, N.W.

Washington, D.C. 20005

1. This application is supported by all data submitted or cited in the application. In addition, if cite-all options are indicated, this application is supported by all data in the Agency's files that concern the properties or effects of this product or of any other product that is identical or substantially similar, and that is one of the types of data that would be required to be submitted if this application sought the initial registration of a product of identical or similar composition and intended uses under the data requirements in effect on the date of approval of this application.

2. I certify that, for each study cited in support of this application for registration that is an exclusive use study, I have obtained the written permission of the original data submitter to cite that study.

3. I certify that, for each study cited in support of this application for registration that is not an exclusive use study:

I have obtained the written permission of the original data submitter to cite that study; or

I have notified in writing the companies who have submitted data I have cited to support those applications and have offered to: (a) Pay compensation for those data in accordance with section 3(c)(1)(D) and 3(c)(2)(D) of the Federal Insecticide, Fungicide and Rodenticide Act; or (b) Commence negotiations to determine which data are subject to the compensation requirements of FIFRA and the amount and terms of compensation due, if any. The companies I have notified are: (Check one)

☐ All companies listed on the Pesticide Data Submitters List for all active ingredients contained in my product (Cite-all method or cite-all option under Selective Method). (Also sign the General Offer to Pay Statement below).

☒ Monsanto Company has submitted the studies which I have cited (Selective Method).

Date February 14, 1991

Signature Sheila A. Schwab

Title Senior Registration Specialist

General Offer to Pay: I hereby offer and agree to pay compensation to other persons, with regard to the approval of this application, to the extent required by FIFRA sec. 3(c)(1)(D) and 3(c)(2)(D).

Date February 14, 1991

Signature Sheila A. Schwab

Title Senior Registration Specialist

| SUBMISSION REVIEW RECORD  |             |  | 1. REGISTRATION NUMBER   |                       |  | CYCLE               | 2. DATE RECEIVED      |     |     |
|---|-------------|--|--------------------------|-----------------------|--|---------------------|-----------------------|-----|-----|
| 3. 3C/D PUBLICATION NECESSARY   |             |  | 4. PETITION NO.          |                       |  | 5. RECEIVED PM TEAM |                       |     |     |
| 5. METHOD OF SUPPORT  |             |  | 7. PRODUCT MANAGER       |                       |  | NO.                 | 8. PROJECTED RETURN   |     |     |
| 9. DATE PULLED  |             | 10. DATE PUBLISHED                               | 11. ACTION TYPE          |                       |  | CODE                | 12. OUTGOING DATE     |     |     |
| <input type="checkbox"/> YES <input type="checkbox"/> NO                            |             |  |                          |                       |  |                     |                       |     |     |
| <input type="checkbox"/> 2A <input type="checkbox"/> 2B <input type="checkbox"/> 2C |             |  |                          |                       |  |                     |                       |     |     |
| 3/6/91  |             |  | add several cups<br>330  |                       |  |                     |                       |     |     |
| REV. SEQ.   | REVIEW CODE | REVIEW TYPE                                      | REVIEWER CODE (Initials) | SIGNATURE OF REVIEWER |  | COM. MENT CODE      | DATE REVIEW COMPLETED |     |     |
|   | A           | REVIEWABILITY TEAM                               |                          |                       |  |                     |                       |     |     |
|   | B           | PRODUCT MANAGER TEAM EFFICACY REVIEW             |                          |                       |  |                     |                       |     |     |
|   | C           | PRODUCT MANAGER TEAM HUMAN SAFETY REVIEW         |                          |                       |  |                     |                       |     |     |
|   | D           | PRODUCT MANAGER TEAM ENVIRONMENTAL SAFETY REVIEW |                          |                       |  |                     |                       |     |     |
|   | E           | PRODUCT MANAGER TEAM RESUBMISSION REVIEW         |                          |                       |  |                     |                       |     |     |
|   | F           | PRODUCT MANAGER                                  |                          | W.K.W. NAC            |  |                     | 0/3                   | 0/6 | 9/1 |
|   | G           | INTERAGENCY REFERRAL                             |                          | IFR Notice in 524-208 |  |                     |                       |     |     |
|   | H           | COST-BENEFIT REVIEW                              |                          |                       |  |                     |                       |     |     |
|   | I           | PUBLIC COMMENTS REVIEW                           |                          |                       |  |                     |                       |     |     |
|   | J           | EEE BRANCH INSECTICIDE EFFICACY                  |                          |                       |  |                     |                       |     |     |
|   | K           | EEE BRANCH HERBICIDE EFFICACY                    |                          |                       |  |                     |                       |     |     |
|   | L           | EEE BRANCH FUNGICIDE EFFICACY                    |                          |                       |  |                     |                       |     |     |
|   | M           | EEE BRANCH RODENTICIDE EFFICACY                  |                          |                       |  |                     |                       |     |     |
|   | N           | EEE BRANCH DISINFECTANT EFFICACY                 |                          |                       |  |                     |                       |     |     |
|   | O           | CHEMISTRY BRANCH RESIDUE CHEMISTRY               |                          |                       |  |                     |                       |     |     |
|   | P           | EEE BRANCH ENVIRONMENTAL CHEMISTRY               |                          |                       |  |                     |                       |     |     |
|   | Q           | TOXICOLOGY BRANCH HUMAN SAFETY                   |                          |                       |  |                     |                       |     |     |
|   | R           | EEE BRANCH ENVIRONMENTAL SAFETY                  |                          |                       |  |                     |                       |     |     |
|   | S           |  |                          |                       |  |                     |                       |     |     |
|   | T           |  |                          |                       |  |                     |                       |     |     |
| PRODUCT MANAGER SIGNATURE   |             |  | TYPE OF RESPONSE         |                       |  |                     | CODE                  |     |     |
|   |             |  |                          |                       |  |                     |                       |     |     |

# MON-35085

Herbicide by Monsanto

## Complete Directions for Use

EPA Reg. No. 524-445

AVOID CONTACT WITH FOLIAGE, GREEN STEMS, OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, SINCE SEVERE INJURY OR DESTRUCTION MAY RESULT.

This product has been approved for use in California except as stated otherwise on pages 122XXX.

|                   |                             |
|-------------------|-----------------------------|
| <del>1990-1</del> | <del>897.10-005.16/53</del> |
| 1991-1            | 898.07-000.01/53            |

Read each of these sections of this label for essential product performance information.

USE THESE CONVENIENT SECTION MARKERS.

### GENERAL INFORMATION

MIXING, ADDITIVES, AND APPLICATION INSTRUCTIONS

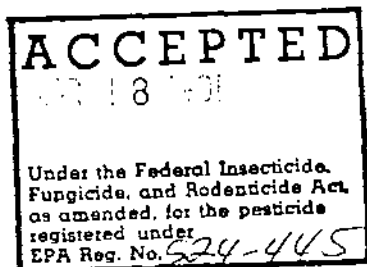
WEEDS CONTROLLED

NONCROP USES

CROPPING SYSTEMS

MINIMUM TILLAGE

TREE AND VINE CROPS



Read the entire label before using this product.

Use only according to label instructions.

Read "LIMIT OF WARRANTY AND LIABILITY" before buying or using. If terms are not acceptable, return at once unopened.

REFORMULATION IS PROHIBITED. SEE INDIVIDUAL CONTAINER LABEL FOR REPACKAGING LIMITATIONS.

### LIMIT OF WARRANTY AND LIABILITY

127

(Not applicable to consumer applications applied by the homeowner for noncommercial purposes as permitted by the supplemental labeling for one-quart containers.)

This Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Complete Directions for Use label booklet ('Directions') when used in accordance with those Directions under the conditions described therein. NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

Buyer and all users shall promptly notify this Company of any claims whether based in contract, negligence, strict liability, other tort or otherwise.

Buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this Company, including, but not limited to, incompatibility with products other than those set forth in the Directions, application to or contact with desirable vegetation, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, application in any manner not explicitly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions, or the presence of products other than those set forth in the Directions in or on the soil, crop or treated vegetation.

THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE LIMIT OF THE LIABILITY OF THIS COMPANY OR ANY OTHER SELLER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT (INCLUDING CLAIMS BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE) SHALL BE THE PURCHASE PRICE PAID BY THE USER OR BUYER FOR THE QUANTITY OF THIS PRODUCT INVOLVED, OR, AT THE ELECTION OF THIS COMPANY OR ANY OTHER SELLER, THE REPLACEMENT OF SUCH QUANTITY, OR, IF NOT ACQUIRED BY PURCHASE, REPLACEMENT OF SUCH QUANTITY. IN NO EVENT SHALL THIS COMPANY OR ANY OTHER SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES.

Buyer and all users are deemed to have accepted the terms of this LIMIT OF WARRANTY AND LIABILITY which may not be varied by any verbal or written agreement.

(INDEX PAGES)

#### PRECAUTIONARY STATEMENTS

---

Hazards to  
Humans and Domestic Animals

---

Keep out of reach of children.

## WARNING!

CAUSES SUBSTANTIAL BUT TEMPORARY EYE INJURY.  
HARMFUL IF INHALED.

Do not get in eyes or breathe spray mist or get in or on clothing.

Wear goggles, face shield or safety glasses.

Wash thoroughly with soap and water after handling.

Remove contaminated clothing and wash before reuse.

FIRST AID: IF IN EYES, hold eyelids open and flush with plenty of water. Get medical attention.

IF INHALED, remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

IF SWALLOWED, drink promptly a large quantity of milk, egg whites, or gelatin solution. If these are not available drink large quantities of water. Get medical attention.

---

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

---

### Environmental Hazards

Do not apply directly to water or wetland (swamps, bogs, marshes or potholes). Do not contaminate water when disposing of equipment washwaters.

---

### Physical or Chemical Hazards

Spray solutions of this product should be mixed, stored and applied ~~only in using only~~ stainless steel, aluminum, fiberglass, plastic and or plastic-lined steel containers.

DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS

STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

---

ACTIVE INGREDIENT:

\*Glyphosate, N-(phosphonomethyl)  
glycine, in the form of its  
isopropylamine salt.....

41.0%

INERT INGREDIENTS:.....59.0%

100.0%

\*Contains 480 grams per litre or 4 pounds per U.S. gallon of the active ingredient glyphosate, in the form of its isopropylamine salt. Equivalent to 356 grams per litre or 3 pounds per U.S. gallon of the acid, glyphosate.

---

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

---

Storage and Disposal

Do not contaminate water, foodstuffs, ~~seed~~ or feed or ~~seed~~ by storage or disposal.

See container label for STORAGE AND DISPOSAL instructions.

---

GENERAL INFORMATION

DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT EXCEPT UNDER CONDITIONS AS SPECIFIED WITHIN THIS LABEL.

~~Roundup® herbicide~~ This product, a water soluble liquid, mixes readily with water to be applied as a foliar spray for the control or destruction of most herbaceous plants. It may be applied through most standard industrial or field-type sprayers after dilution and thorough mixing with water in accordance with label instructions.

This product moves through the plant from the point of foliage contact to and into the root system. Visible effects on most annual

weeds occur within 2 to 4 days, but on most perennial weeds may not occur for 7 days or more. Extremely cool or cloudy weather following treatment may slow down activity of this product and delay visual effects of control. Visible effects are a gradual wilting and yellowing of the plant which advances to complete browning of aboveground growth and deterioration of underground plant parts.

Unless otherwise specified on this label, delay application until vegetation has emerged and reached the stages described for control of such vegetation under the "Weeds Controlled" section of this label. Unemerged plants arising from unattached underground rhizomes or root stocks of perennials will not be affected by the spray herbicide and will continue to grow. For this reason, best control of most perennial weeds is obtained when treatment is made at late growth stages approaching maturity.

Always use the higher rate of this product per acre within the recommended range when (1) weed growth is heavy or dense, or (2) weeds are growing in an undisturbed (noncultivated) area.

Do not treat weeds under poor growing conditions such as drought stress, disease or insect damage, as reduced weed control may result. Reduced results may also occur when treating weeds heavily covered with dust.

Reduced control may result when applications are made to annual or perennial weeds that have been mowed, grazed, or cut, and have not been allowed to regrow to the recommended stage for treatment.

Rainfall or irrigation occurring within 6 hours after application may reduce effectiveness. Heavy rainfall or irrigation within 2 hours after application may wash the chemical off the foliage and a repeat treatment may be required.

This product does not provide residual weed control. For subsequent residual weed control, follow a label-approved herbicide program. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

Buyer and all users are responsible for all loss or damage in connection with the use or handling of mixtures of this product with herbicides or other materials that are not expressly recommended in this labeling. Mixing this product with herbicides or other materials not recommended on this label may result in reduced performance.

For best results, spray coverage should be uniform and complete. Do not spray weed foliage to the point of runoff.

Keep people and pets off treated areas until spray solution has

dried.

DOMESTIC ANIMALS: This product is considered to be relatively nontoxic to dogs and other domestic animals; however, ingestion of this product or large amounts of freshly sprayed vegetation may result in temporary gastrointestinal irritation (vomiting, diarrhea, colic, etc.). If such symptoms are observed, provide the animal with plenty of fluids to prevent dehydration. Call a veterinarian if symptoms persist for more than 24 hours.

~~®Registered trademark of Monsanto Company~~

#### ATTENTION

AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS.

Do not allow the herbicide solution to mist, drip, drift, or splash onto desirable vegetation since minute quantities of this product can cause severe damage or destruction to the crop, plants, or other areas on which treatment was not intended. The likelihood of injury occurring from the use of this product is greatest when winds are gusty or in excess of 5 miles per hour or when other conditions, including lesser wind velocities, will allow spray drift to occur. When spraying, avoid combinations of pressure and nozzle type that will result in splatter or fine particles (mist) which are likely to drift. AVOID APPLYING AT EXCESSIVE SPEED OR PRESSURE.

NOTE: Use of this product in any manner not consistent with this label may result in injury to persons, animals or crops, or other unintended consequences. Keep container closed to prevent spills and contamination.

---

#### MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS

---

APPLY THESE SPRAY SOLUTIONS IN PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING DESIRED VOLUMES. DO NOT APPLY UNDER WHEN WIND OR OTHER CONDITIONS WHICH ALLOW FAVOR DRIFT. TO OCCUR. HAND GUN APPLICATIONS SHOULD BE PROPERLY DIRECTED TO AVOID SPRAYING DESIRABLE PLANTS. NOTE: REDUCED RESULTS MAY OCCUR IF WATER CONTAINING SOIL IS USED, ~~such as~~ SUCH AS WATER FROM PONDS AND UNLINED DITCHES.

---

#### MIXING

---

This product mixes readily with water. Mix spray solutions of this product as follows: Fill the mixing or spray tank with the required



amount of water. Add the ~~proper~~ recommended amount of this product (see the "Directions for Use" and "Weeds Controlled" sections of this label) near the end of the filling process and mix well. Remove hose from tank immediately after filling to avoid siphoning back into the carrier source. During mixing and application, foaming of the spray solution may occur. To prevent or minimize foam, avoid the use of mechanical agitators, place the filling hose below the surface of the spray solution, terminate by-pass and return lines at the bottom of the tank and, if needed, use an approved anti-foam or defoaming agent.

#### TANK MIXTURES

Always predetermine the compatibility of labeled tank mixtures of this product with water carrier by mixing small proportional quantities in advance.

Mix labeled tank mixtures of this product with water as follows:

1. Place a 20 to 35 mesh screen or wetting basket over filling port.
2. Through the screen, fill the sprayer tank one-half full with water and start agitation.
3. If a wettable powder is used, make a slurry with the water carrier, and add it SLOWLY through the screen into the tank. Continue agitation.
4. If a flowable formulation is used, premix one part flowable with one part water. Add diluted mixture SLOWLY through the screen into the tank. Continue agitation.
5. If an emulsifiable concentrate formulation is used, premix one part emulsifiable concentrate with two parts water. Add diluted mixture slowly through the screen into the tank. Continue agitation.
6. Continue filling the sprayer tank with water and add the required amount of this product near the end of the filling process.
7. Where nonionic surfactant is recommended, add this to the spray tank before completing the filling process.
8. Add individual formulations to the spray tank as follows: wettable powder, flowable, emulsifiable concentrate, drift control additive, water soluble liquid followed by surfactant.

Maintain good agitation at all times until the contents of the tank are sprayed. If the spray mixture is allowed to settle, thorough

agitation is required to resuspend the mixture before spraying is resumed.

Keep by-pass line on or near bottom of tank to minimize foaming. Screen size in nozzle or line strainers should be no finer than 50 mesh. Carefully select proper nozzle to avoid spraying a fine mist. For best results with conventional ground applications equipment, use flat fan nozzles.

Clean sprayer and parts immediately after using this product by thoroughly flushing with water.

---

## ADDITIVES

---

### SURFACTANTS

Nonionic surfactants which are labeled for use with herbicides may be used. Do not reduce rates of this product when adding surfactant. When adding additional surfactant ~~or label instructions require the use of additional surfactant~~, use 0.5 percent surfactant concentration (2 quarts per 100 gallons of spray solution) when using surfactants which contain at least 50 70 percent active ingredient or a 1 percent surfactant concentration (4 quarts per 100 gallons of spray solution) for those surfactants containing less than 50 70 percent active ingredient. Read and carefully observe surfactant cautionary statements and other information appearing on the surfactant label.

### AMMONIUM SULFATE

The addition of 1 to 2 percent dry ammonium sulfate by weight or 8.5 to 17 pounds per 100 gallons of water may increase the performance of this product, and this product plus 2,4-D ~~amine~~ or Banvel" or residual herbicide tank mixtures on annual and perennial weeds. The improvement in performance may be apparent where environmental stress is a concern. Low quality ammonium sulfate may contain material that will not readily dissolve which could result in nozzle tip plugging. To determine quality, perform a jar test by adding 1/3 cup of ammonium sulfate to 1 gallon of water and agitate for 1 minute. If undissolved sediment is observed, predissolve the ammonium sulfate in water and filter prior to addition to the spray tank. If ammonium sulfate is added directly to the spray tank, add slowly with agitation. Adding too quickly may clog outlet line. Ensure that ammonium sulfate is completely dissolved in the spray tank before adding herbicides or surfactant. Thoroughly rinse the spray system with clean water after use to reduce corrosion.

NOTE: The use of ammonium sulfate as an additive does not preclude

the need for additional surfactant. Do not use herbicide rates lower than recommended in this label.

Banvel™ is a trademark of Sandoz, Inc.

#### COLORANTS OR DYES

Agriculturally approved colorants or marking dyes may be added to this product. Colorants or dyes used in spray solutions of this product may reduce performance, especially at lower rates or dilutions. Use colorants or dyes according to the manufacturer's recommendations.

---

#### APPLICATION EQUIPMENT AND TECHNIQUES

---

Do not apply this product through any type of irrigation system.

This product may be applied with the following application equipment:

**Aerial -- Fixed Wing and Helicopter**

**Broadcast Spray**

**Controlled Droplet Applicator (CDA) --** Hand-held or boom-mounted applicators which produce a spray consisting of a narrow range of droplet sizes.

**Hand-Held and High-Volume Spray Equipment --** Knapsack and backpack sprayers, pump-up pressure sprayers, handguns, handwands, lances and other hand-held spray equipment used to direct the spray onto weed foliage and vehicle-mounted high-volume spray equipment for spray-to-wet applications.

**Selective equipment --** Recirculating sprayers, shielded sprayers and wiper applicators.

See the appropriate part of this section for specific rates of application and instructions.

#### AERIAL EQUIPMENT

Use the recommended rates of this herbicide in 3 to 15 gallons of water per acre unless otherwise specified on this label. See the "Weeds Controlled" section of this label for specific rates. Unless otherwise specified, do not exceed the one quart rate per acre of this product. (Aerial applications of this product may be made in annual cropping conventional tillage systems, fallow and reduced tillage systems, preharvest, silvicultural sites, and

rights-of-way. Refer to the individual use area sections of this label for recommended volumes and application rates.) FOR AERIAL APPLICATION IN CALIFORNIA, REFER TO THE FEDERAL SUPPLEMENTAL LABEL FOR AERIAL APPLICATIONS IN THAT STATE FOR SPECIFIC INSTRUCTIONS, RESTRICTIONS AND REQUIREMENTS.

This product plus Oust tank mixtures may not be applied by air in California.

Avoid direct application to any body of water.

AVOID DRIFT--DO NOT APPLY DURING INVERSION CONDITIONS, WHEN WINDS ARE GUSTY, OR UNDER ANY OTHER CONDITION WHICH ~~WILL ALLOW~~ FAVORS DRIFT. DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

Coarse sprays are less likely to drift; therefore, do not use nozzles or nozzle configurations which dispense spray as fine spray droplets. Do not angle nozzles forward into the airstream and do not increase spray volume by increasing nozzle pressure.

Drift control additives may be used. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label.

**Ensure uniform application** -- To avoid streaked, uneven or overlapped application, use appropriate marking devices.

Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove residues of this product accumulated during spraying or from spills. PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART. LANDING GEAR ARE MOST SUSCEPTIBLE. The maintenance of an organic coating (paint) which meets aerospace specification MIL-C-38413 may prevent corrosion.

#### ■ BROADCAST EQUIPMENT ■

**For control of annual or perennial weeds listed on this label using broadcast equipment** -- Use the recommended rates of this product in 3 to 40 gallons of water per acre as a broadcast spray unless otherwise specified on this label. See the "Weeds Controlled" section of this label for specific rates. As density of weeds increases, spray gallons per acre should be increased within the recommended range to ensure complete coverage. Carefully select proper nozzle to avoid spraying a fine mist. For best results with ground application equipment, use flat fan nozzles. Check for even distribution of spray droplets.

■ **CONTROLLED DROPLET  
APPLICATION (CDA)** ■

The rate of this product applied per acre by vehicle-mounted CDA equipment must not be less than the amount recommended in this label when applied by conventional broadcast equipment. For vehicle-mounted CDA equipment, apply 3 to 15 gallons of water per acre.

For the control of labeled annual weeds with hand-held CDA units, apply a 20 percent solution of this product at a flow rate of 2 fluid ounces per minute and a walking speed of 1.5 MPH (1 quart per acre). For the control of labeled perennial weeds, apply a 20 to 40 percent solution of this product at a flow rate of 2 fluid ounces per minute and a walking speed of 0.75 MPH (2 to 4 quarts per acre).

Controlled droplet application equipment produces a spray pattern which is not easily visible. Extreme care must be exercised to avoid spray or drift contacting the foliage or any other green tissue of desirable vegetation, as damage or destruction may result.

■ **HAND-HELD and HIGH-VOLUME  
EQUIPMENT** ■

Use coarse sprays only.

Mix this product in clean water and apply to foliage of vegetation to be controlled. For applications made on a spray-to-wet basis, spray coverage should be uniform and complete. Do not spray to the point of runoff.

For control of annual weeds listed on this label, apply a 0.5 percent solution of this product plus nonionic surfactant to weeds less than 6 inches in height or runner length. Apply prior to seedhead formation in grass or bud formation in ~~broadleaves~~ broadleaf weeds. Allow three or more days before tillage or mowing.

For annual weeds over 6 inches tall, or when not using additional surfactant, or unless otherwise specified, use a 1 percent solution. For best results, use a 2 percent solution on harder-to-control perennials, such as bermudagrass, dock, field bindweed, hemp dogbane, milkweed and Canada thistle.

Less than complete coverage of weeds may result from the use of spray equipment designed for motorized spot treatments. Where less than complete coverage of annual weeds occurs, use a 5 percent solution. Do not reduce recommended concentrations of this product when adding surfactant.

Prepare the desired volume of spray solution by mixing the amount of this product in water as shown in the following table:

### Spray Solution

| DESIRED<br>VOLUME | AMOUNT OF MON-35085 |          |           |          |          |
|-------------------|---------------------|----------|-----------|----------|----------|
|                   | 1/2%                | 1%       | 1 1/2%    | 2%       | 5%       |
| 1 gallon          | 2/3 oz              | 1 1/3 oz | 2 oz      | 2 2/3 oz | 6 1/2 oz |
| 25 gallons        | 1 pt                | 1 qt     | 1 1/2 qt  | 2 qt     | 5 qt     |
| 100 gallons       | 2 qt                | 1 gal    | 1 1/2 gal | 2 gal    | 5 gal    |

2 tablespoons = 1 fluid ounce

For use in knapsack sprayers, it is suggested that the proper amount of this product be mixed with water in a larger container. Fill sprayer with the mixed solution.

For hand-held WIPER APPLICATORS, see the "Selective Equipment" section and for hand-held CONTROLLED DROPLET APPLICATORS, see the "Controlled Droplet Application (CDA)" section of this label.

### ■ SELECTIVE EQUIPMENT ■

This product may be applied through a recirculating spray system, a shielded applicator, or a wiper applicator after dilution and thorough mixing with water to listed weeds growing in any noncrop site specified on this label and only when specifically recommended in cropping systems.

A recirculating spray system directs the spray solution onto weeds growing above desirable vegetation, while spray solution not intercepted by weeds is collected and returned to the spray tank for reuse.

A shielded applicator directs the herbicide solution onto weeds while shielding desirable vegetation from the herbicide.

A wiper applicator applies the herbicide solution onto weeds by rubbing the weed with an absorbent material containing the herbicide solution.

### AVOID CONTACT WITH DESIRABLE VEGETATION.

Contact of the herbicide solution with the desirable vegetation may result in damage or destruction. Applicators used above desired vegetation should be adjusted so that the lowest spray stream or wiper contact point is at least two inches above the desirable vegetation. Droplets, mist, foam, or splatter of the herbicide

solution settling on desirable vegetation may result in discoloration, stunting, or destruction.

Applications made above the crops should be made when the weeds are a minimum of 6 inches above the desirable vegetation. Better results may be obtained when more of the weed is exposed to the herbicide solution. Weeds not contacted by the herbicide solution will not be affected. This may occur in dense clumps, severe infestations, or when the height of the weeds varies so that not all weeds are contacted. In these instances, repeat treatment may be necessary.

See the 'Weeds Controlled' section of this label for recommended stage of growth for specific weeds.

#### NOTE

- Maintain equipment in good operating condition. Avoid leakage or dripping onto desirable vegetation.
- Adjust height of applicator to insure adequate contact with weeds.
- Keep nozzle tips and wiping surfaces clean.
- Keep spray patterns aligned into recovery chamber of the recirculating sprayer.
- Keep shields on shielded applicators adjusted to protect desirable vegetation.
- Maintain recommended roller RPM on roller applicators while in use.
- Keep wiper material at proper degree of saturation with herbicide solution.
- DO NOT use wiper equipment when weeds are wet.
- DO NOT operate equipment at ground speeds greater than 5 mph. Weed control may be affected by speed of application equipment. As weed density increases, reduce equipment ground speed to ensure good coverage of weeds.
- Be aware that, on sloping ground, the herbicide solution may migrate, causing dripping on the lower end and drying on the upper end of a wiper applicator.
- Variation in equipment design may affect weed control. With wiper applicators, the wiping material and its orientation must allow delivery of sufficient quantities of the recommended

herbicide solution directly to the weed.

- Care must be taken with all types of wipers to ensure that the absorbent material does not become oversaturated, causing the herbicide to drip on desirable vegetation.
- Mix only the amount of solution to be used during a one-day period, as reduced activity may result from use of leftover solutions. With all equipment, drain and clean sprayer and wiper parts immediately after using this product by thoroughly flushing with water.

### RECIRCULATING SPRAYERS

Recirculating sprayer calibration is made on the basis of ground speed and delivery volume. Two procedures can be used to calibrate: (1) determine the discharge being delivered per minute, then operate at the designated ground speed, or (2) select the desired ground speed and then adjust the sprayer to deliver the recommended volume per minute (this may require nozzle changes). Use the appropriate table below.

Do not operate at nozzle pressure above 20 PSI.

**Table 1.** Use this table when calibrating box or row-type recirculating sprayers. Box or row-type sprayer calibration is based on the total discharge collected per row. Use only straight stream or 15° fan-type nozzles.

---

#### \*VOLUME PER MINUTE PER ROW

| <u>MPH</u> | <u>Fluid Ounces</u> |
|------------|---------------------|
| 2          | 26 to 35            |
| 3          | 38 to 51            |
| 4          | 51 to 68            |
| 5          | 65 to 86            |

\*NOTE: Be certain the amount collected is for all spray streams treating one row.

---

**Table 2.** Use this table when calibrating broadcast type recirculating sprayers. Broadcast recirculating sprayer calibration is based on the discharge collected per minute from one nozzle on a 20-inch spacing.

---

#### VOLUME PER MINUTE PER NOZZLE



| <u>MPH</u> | <u>Fluid Ounces</u> |
|------------|---------------------|
| 2          | 7 to 9              |
| 3          | 10 to 13            |
| 4          | 13 to 18            |
| 5          | 16 to 22            |

When applied as recommended under the conditions described for recirculating sprayers, this product will control the following weeds growing a minimum of 6 inches above desirable vegetation.

**Perennial Broadleaf Weeds** -- To SUPPRESS the following weeds, mix in a ratio of 4 quarts of this product in 20 gallons of water and apply as directed.

**Dogbane, hemp**  
*Apocynum cannabinum*

**Milkweed**  
*Asclepias syriaca*

**Perennial Grasses and Annual Broadleaf Weeds** -- To control the following weeds, mix in a ratio of 3 quarts of this product in 20 gallons of water and apply as directed:

**Cocklebur**  
*Xanthium strumarium*

**Johnsongrass**  
*Sorghum halepense*

**Pigweed, redroot**  
*Amaranthus retroflexus*

**Sunflower**  
*Helianthus annuus*

**Annual Grasses** -- To control the following weeds, mix in a ratio of 2 quarts of this product in 20 gallons of water and apply as directed:

**Corn**  
*Zea mays*

**Shattercane**  
*Sorghum bicolor*

#### SHIELDED APPLICATORS

141

When applied as directed under conditions described for shielded applicators, this product will control those weeds listed in the "Weeds Controlled" section of this label.

Shielded applicators which apply the herbicide solution as a spray band should be calibrated on a broadcast equivalent rate and volume basis. To determine these:

|                                |   |                                |   |                                    |
|--------------------------------|---|--------------------------------|---|------------------------------------|
| Band width<br><u>in inches</u> | X | Herbicide<br>Broadcast<br>RATE | = | Herbicide<br>Band RATE<br>per acre |
| Row width<br>in inches         |   | per acre                       |   |                                    |

|                                |   |                                    |   |  |
|--------------------------------|---|------------------------------------|---|--|
| Band width<br><u>in inches</u> | X | Herbicide<br>VOLUME of<br>solution | = | Herbicide<br>VOLUME<br>of solution<br>per acre |
| Row width<br>in inches         |   | per acre                           |   |  |

Use nozzles that provide uniform coverage within the treated area. EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT WITH DESIRABLE VEGETATION.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "Weeds Controlled" section of this label.

#### WIPER APPLICATORS

Wiper applicators include either roller or wick devices which physically wipe appropriate concentrations or amounts of this product directly onto the weed. Equipment must be designed, maintained, and operated to prevent the herbicide solution from contacting desirable vegetation. Operate this equipment at ground speeds no greater than 5 mph. Performance may be improved by reducing speed in areas of heavy weed infestations to ensure adequate wiper saturation. Better results may be obtained if two applications are made in opposite directions.

Do not add surfactant to the herbicide solution.

**For Roller Applicators** -- Mix 1 gallon of this product in enough water to prepare 10 gallons of herbicide solution (10 percent solution). Apply this solution to perennial weeds or annual broadleaf weeds listed in this "Wiper Applicators" section.

Mix 1 gallon of this product in enough water to provide 20 gallons of herbicide solution (5 percent solution). Apply this solution to annual grasses listed in this "Wiper Applicators" section.

Roller speed should be maintained at 40 to 60 RPM.

For Wick or Wiper Applicators -- Mix 1 gallon of this product in 2 gallons of water to prepare a 33 percent solution. Apply this solution to weeds listed in this "Wiper Applicators" section.

In severe infestations, reduce equipment ground speed to ensure that adequate amounts of this product are wiped on the weeds. A second treatment in the opposite direction may be beneficial.

Do not permit herbicide solution to contact desirable vegetation.

When applied as recommended under the conditions described for "Wiper Applicators", this product CONTROLS the following weeds:

ANNUAL GRASSES

**Corn**

*Zea mays*

**Panicum, Texas**

*Panicum texanum*

**Rye, common**

*Secale cereale*

**Shattercane**

*Sorghum bicolor*

ANNUAL BROADLEAVES

**Sicklepod**

*Cassia obtusifolia*

**Spanishneedles**

*Bidens bipinnata*

**Starbur, bristly**

*Acanthospermum hispidum*

When applied as recommended under the conditions described for "Wiper Applicators", this product SUPPRESSES the following weeds:

ANNUAL BROADLEAVES

**Beggarweed, Florida**

*Desmodium tortuosum*

**Dogfennel**

*Eupatorium capilliflorum*

**Pigweed, redroot**  
*Amaranthus retroflexus*

**Ragweed, common**  
*Ambrosia artemisiifolia*

**Ragweed, giant**  
*Ambrosia trifida*

**Sunflower**  
*Helianthus annuus*

**Thistle, musk**  
*Carduus nutans*

**Velvetleaf**  
*Abutilon theophrasti*

PERENNIAL GRASSES

**Bermudagrass**  
*Cynodon dactylon*

**Guineagrass**  
*Panicum maximum*

**Johnsongrass**  
*Sorghum halepense*

**Smutgrass**  
*Sporobolus poiretii*

**Vaseygrass**  
*Paspalum urvillei*

PERENNIAL BROADLEAVES

**Dogbane, hemp**  
*Apocynum cannabinum*

**Milkweed**  
*Asclepias syriaca*

**Nightshade, silverleaf**  
*Solanum elaeagnifolium*

**Thistle, Canada**  
*Cirsium arvense*

---

**WEEDS CONTROLLED**

This herbicide controls many annual and perennial grasses and broadleaf weeds.

#### ANNUAL WEEDS

- Apply to actively growing grass and broadleaf weeds.
- Allow at least 3 days after treatment before tillage.
- For maximum agronomic benefit, apply when weeds are 6 inches or less in height.
- To prevent seed production, applications should be made prior to seedhead formation.
- This product does not provide residual control; therefore, delay application until maximum weed emergence. Repeat treatments may be necessary to control later germinating weeds.

#### LOW-VOLUME BROADCAST APPLICATION (LOW-RATE TECHNOLOGY)

When applied as directed under the conditions described, this product will control the weeds listed below when:

1. Water carrier volumes are of 3 to 10 gallons per acre for ground applications and 3 to 5 gallons per acre for aerial applications are recommended. (See the 'Aerial Application' section of this label for approved sites.)
2. A nonionic surfactant is added at 0.5 to 1 percent by total spray volume. Use 0.5 percent surfactant concentration when using surfactants which contain at least 50 70 percent active ingredient or a 1 percent surfactant concentration for those surfactants containing less than 50 70 percent active ingredient.

#### NOTE

- The addition of 2 percent dry ammonium sulfate by weight or 17 pounds per 100 gallons of water may increase the performance of this product on annual weeds. The improvement in performance may be apparent where environmental stress is a concern. Refer to the 'Mixing, Additives and Application Instructions' section of this label.
- Do not tank-mix with soil residual herbicides when using these rates unless otherwise specified.

- For weeds that have been mowed, grazed, or cut, allow regrowth to occur prior to treatment.
- Refer to the "Tank Mixtures" portion of this section for control of additional broadleaf weeds.

| WEED SPECIES                                    | MAXIMUM<br>HEIGHT/LENGTH  | RATE<br>PER<br>ACRE**<br>(Fluid Ounces) |
|---|---------------------------|---|
| Foxtail<br><i>Setaria spp.</i>                  | 12"                       | 8 oz.                                   |
| Barnyardgrass<br><i>Echinochloa crus-galli</i>  | 6"<br>(0 to 4"<br>4 to 6" | 12 oz.<br>16 oz.)<br>24 oz.)            |
| Bluegrass, annual<br><i>Poa annua</i>           |                           |   |
| Brome, downy*<br><i>Bromus tectorum</i>         |                           |   |
| Mustard, blue<br><i>Chorispora tenella</i>      |                           |   |
| Mustard, tansy<br><i>Descurainia pinnata</i>    |                           |   |
| Mustard, tumble<br><i>Sisymbrium altissimum</i> |                           |   |
| Mustard, wild<br><i>Sinapis arvensis</i>        |                           |   |
| Spurry, umbrella<br><i>Holosteum umbellatum</i> |                           |   |
| Barley<br><i>Hordeum vulgare</i>                | 12"                       |   |
| Rye<br><i>Secale cereale</i>                    |                           |   |
| Sandbur, field<br><i>Cenchrus spp.</i>          |                           |   |

**Shattercane**

*Sorghum bicolor*

**Stinkgrass**

*Eragrostis cilianensis*

---

**Wheat**

18"

*Triticum aestivum*

---

**Morningglory**

2"

16 oz.

*Ipomea spp.*

**Sicklepod**

*Cassia obtusifolia*

---

**Bluegrass, bulbous**

6"

*Poa bulbosa*

**Cheat**

*Bromus secalinus*

**Chickweed, common**

*Stellaria media*

**Chickweed, mouseear**

*Cerastium vulgatum*

**Corn**

*Zea mays*

**Goatgrass, jointed**

*Aegilops cylindrica*

**Groundsel, common**

*Senecio vulgaris*

**Henbit**

*Lamium amplexicaule*

**Horseweed/Marestail**

*Conyza canadensis*

**Lambsquarters, common**

*Chenopodium album*

**Pennycress, field**

Fanweed

*Thlaspi arvense*

Rocket, London  
*Sisymbrium irio*

Ryegrass, Italian  
*Lolium multiflorum*

Shepherdspurse  
*Capsella bursa-pastoris*

Spurge, annual  
*Euphorbia* spp.

---

Buttercup 12"  
*Ranunculus* spp.

Cocklebur  
*Xanthium strumarium*

Crabgrass  
*Digitaria* spp.

Dwarf dandelion  
*Krigia cespitosa*

False flax, small seed  
*Camelina microcarpa*

Foxtail, Carolina  
*Alopecurus carolinianus*

Johnson grass, seedling  
*Sorghum halepense*

Oats, wild  
*Avena fatua*

Panicum, fall  
*Panicum dichotomiflorum*

Panicum, Texas  
*Panicum texanum*

Pigweed, redroot  
*Amaranthus retroflexus*

Pigweed, smooth  
*Amaranthus hybridus*

Witchgrass



*Panicum capillare*

---

|  |         |       |
|--|---------|-------|
| Sicklepod<br><i>Cassia obtusifolia</i> | 3 to 4" | 24 oz |
|--|---------|-------|

|   |    |
|---|----|
| Signalgrass, broadleaf<br><i>Brachiaria platyphylla</i> | 4" |
|---|----|

---

|   |          |
|---|----------|
| Horseweed/Marestail<br><i>Conyza canadensis</i> | 7 to 12" |
|---|----------|

|   |
|---|
| Lambsquarters, common<br><i>Chenopodium album</i> |
|---|

|   |
|---|
| Spurge, annual<br><i>Euphorbia</i> spp. |
|---|

---

|                                  |    |        |
|----------------------------------|----|--------|
| Rice, red<br><i>Oryza sativa</i> | 4" | 32 oz. |
|----------------------------------|----|--------|

|                                |    |        |
|--------------------------------|----|--------|
| Teaweed<br><i>Sida spinosa</i> | 4" | 32 oz. |
|--------------------------------|----|--------|

---

|  |               |
|--|---------------|
| <del>Rice, red<br/><i>Oryza sativa</i></del> | <del>6"</del> |
|--|---------------|

|                                       |    |
|---------------------------------------|----|
| Sprangletop<br><i>Leptochloa</i> spp. | 6" |
|---------------------------------------|----|

---

|  |     |
|--|-----|
| Geranium, Carolina<br><i>Geranium carolinianum</i> | 12" |
|--|-----|

|                                      |
|--------------------------------------|
| Goosegrass<br><i>Eleusine indica</i> |
|--------------------------------------|

|   |
|---|
| Primrose, cutleaf evening<br><i>Oenothera laciniata</i> |
|---|

|  |
|--|
| Pysley, Florida<br><i>Richardia scabra</i> |
|--|

|  |          |
|--|----------|
| Sicklepod<br><i>Cassia obtusifolia</i> | 5 to 12" |
|--|----------|

|   |
|---|
| Spanishneedles<br><i>Bidens bipinnata</i> |
|---|

---

|                                |     |        |
|--------------------------------|-----|--------|
| Filaree<br><i>Erodium</i> spp. | 12" | 48 oz. |
|--------------------------------|-----|--------|

**Sprangletop**  
**Leptochloa spp.**

---

Use these rates to control barnyardgrass in Alabama, Arkansas, Mississippi, Missouri, Louisiana and Texas for preplant treatments.

- \* For control in no-till systems, use 16 fluid ounces per acre.
- \*\* For those rates less than 32 fluid ounces per acre, this product at rates up to 32 fluid ounces per acre may be used where heavy weed densities exist.

**TANK MIXTURES**

MON-35085 plus BANVEL  
plus NONIONIC SURFACTANT

MON-35085 plus 2,4-D AMINE  
plus NONIONIC SURFACTANT

DO NOT APPLY BANVEL OR 2,4-D AMINE TANK MIXTURES BY AIR IN CALIFORNIA.

These tank mixtures are recommended for use in fallow and reduced tillage areas only. Follow use directions as given in the "Low-Volume Broadcast Application" section.

Roundup This product plus Banvel or 2,4-D amine will control the annual grasses and broadleaf weeds previously listed for Roundup this product alone at the indicated heights (except 8 fluid ounces per acre applications), plus the following broadleaf weeds. For those weeds previously listed at 8 fluid ounces of Roundup herbicide this product alone per acre, use the 12 fluid ounces rate in these tank mixtures.

NOTE: Refer to the specific product labels for crop rotation restrictions and cautionary statements of all products used in tank mixtures. Some crop injury may occur if Banvel is applied within 45 days of planting. The addition of Banvel in a mixture with this product may provide short-term residual control of selected weed species.

Apply 12 to 16 fluid ounces of this product plus 0.25 lb. a.i. of Banvel or 0.5 pound a.e.i. of 2,4-D amine, plus 0.5 to 1 percent nonionic surfactant by total spray volume per acre to control dense populations of the following annual broadleaf weeds when less than the 6 inches in height indicated:

Cocklebur (12")  
*Xanthium strumarium*

Kochia\* (6")  
*Kochia scoparia*

Lambsquarters (12")  
*Chenopodium album*

Lettuce, prickly (6")  
*Lactuca serriola*

Marestail/Horseweed (6")  
*Conyza canadensis*

Morningglory (6")  
*Ipomea spp.*

Pigweed, redroot (12")  
*Amaranthus retroflexus*

Pigweed, smooth (12")  
*Amaranthus hybridus*

Thistle, Russian (12")  
*Salsola kali*

\*Controlled with Banvel tank mixture only.

Apply 16 fluid ounces of this product plus 0.5 pound a.i. of 2,4-D, plus 0.5 to 1 percent nonionic surfactant by total spray volume per acre to control the following annual broadleaf weeds when less than 6 inches in height.

Ragweed, common  
*Ambrosia artemisiifolia*

Ragweed, giant  
*Ambrosia trifida*

Smartweed, Pennsylvania  
*Polygonum pensylvanicum*

Velvetleaf  
*Abutilon theophrasti*

#### HIGH-VOLUME BROADCAST APPLICATIONS

When applied as directed under the conditions described, this



product will control the weeds listed below when water carrier volumes are 10 to 40 gallons per acre for ground applications.

~~Use 1 quart of this product per acre if weeds are less than 6 inches tall. If weeds are over 6 inches tall, use 1.5 quarts of this product per acre. Apply 1 to 1.5 quarts of this product per acre plus 0.5 to 1 percent nonionic surfactant by total spray volume. Use 1 quart per acre if weeds are less than 6 inches tall and 1.5 quarts per acre if weeds are over 6 inches tall. If weeds have been mowed, grazed, or cut, allow adequate time for new growth to recommended stages prior to treatment. These rates will also provide control of weeds listed in the "Low-Volume Broadcast Application" section.~~

#### WEED SPECIES

**Balsamapple\***

*Momordica charantia*

**Bassia, fivehook**

*Bassia hyssopifolia*

**Brome**

*Bromus* spp.

**Fiddleneck**

*Amsinckia* spp.

**Flaxleaf Fleabane**

*Conyza bonariensis*

**Fleabane**

*Erigeron* spp.

**Kochia**

*Kochia scoparia*

**Lettuce, prickly**

*Lactuca serriola*

**Panicum**

*Panicum* spp.

**Ragweed, common**

*Ambrosia artemisiifolia*

**Ragweed, giant**

*Ambrosia trifida*

**Smartweed, Pennsylvania**

*Polygonum pensylvanicum*

**Sowthistle, annual**  
*Sonchus oleraceus*

**Sunflower**  
*Helianthus annuus*

**Thistle, Russian**  
*Salsola kali*

**Velvetleaf**  
*Abutilon theophrasti*

\*Apply with hand-held equipment only.

#### PERENNIAL WEEDS

Apply this product as follows to control or destroy most perennial weeds:

NOTE: If weeds have been mowed or tilled, do not treat until plants have resumed active growth and ~~are at~~ have reached the recommended stages.

Repeat treatments may be necessary to control weeds regenerating from underground parts or seed. Repeat treatments must be made prior to crop emergence.

The addition of 1 to 2 percent dry ammonium sulfate by weight or 8.5 to 17 pounds per 100 gallons of water may increase the performance of this product on perennial weeds. The improvement in performance may be apparent where environmental stress is a concern. Refer to the "Mixing, Additives and Application Instructions" section of this label.

When applied as recommended under the conditions described, this product WILL CONTROL the following PERENNIAL WEEDS:

**Alfalfa**  
*Medicago sativa*

**Alligatorweed\***  
*Alternanthera philoxeroides*

**Artichoke, Jerusalem**  
*Helianthus tuberosus*

**Bahiagrass**  
*Paspalum notatum*

**Bentgrass**

*Agrostis* spp.

**Bermudagrass**

*Cynodon dactylon*

**Bermudagrass, water (knotgrass)**

*Paspalum distichum*

**Bindweed, field**

*Convolvulus arvensis*

**Bluegrass, Kentucky**

*Poa* spp.

**Blueweed, Texas**

*Helianthus ciliaris*

**Brackenfern**

*Pteridium aquilinum*

**Bromegrass, smooth**

*Bromus inermis*

**Bursage, woollyleaf**

*Franseria tomentosa*

**Canarygrass, reed**

*Phalaris arundinacea*

**Cattail**

*Typha* spp.

**Clover, red**

*Trifolium pratense*

**Clover, white**

*Trifolium repens*

**Cogongrass**

*Imperata cylindrica*

**Dallisgrass**

*Paspalum dilatatum*

**Dandelion**

*Taraxacum officinale*

**Dock, curly**

*Rumex crispus*

**Dogbane, hemp**  
*Apocynum cannabinum*

**Fescues**  
*Festuca spp.*

**Fescue, tall**  
*Festuca arundinacea*

**Guineagrass**  
*Panicum maximum*

**Horsenettle**  
*Solanum carolinense*

**Horseradish**  
*Armoracia rusticana*

**Johnsongrass**  
*Sorghum halepense*

**Kikuyugrass**  
*Pennisetum clandestinum*

**Knapweed**  
*Centaurea repens*

**Lantana**  
*Lantana camara*

**Milkweed**  
*Asclepias spp.*

**Muhly, wirestem**  
*Muhlenbergia frondosa*

**Mullein, common**  
*Verbascum thapsus*

**Napiergrass**  
*Pennisetum purpureum*

**Nightshade, silverleaf**  
*Solanum elaeagnifolium*

**Nutsedge, purple, yellow**  
*Cyperus rotundus*  
*Cyperus esculentus*

**Orchardgrass**



Dactylis glomerata  
 Pampas  
   Cortaderia jubata  
 Paragrass  
   Brachiaria mutica  
 Phragmites\*  
   Phragmites spp.  
 Quackgrass  
   Agropyron repens  
 Redvine\*  
   Brunnichia ovata  
 Reed, giant  
   Arundo donax  
 Ryegrass, perennial  
   Lolium perenne  
 Smartweed, swamp  
   Polygonum coccineum  
 Spurge, leafy\*  
   Euphorbia esula  
 Sweet potato, wild\*  
   Ipomoea pandurata  
 Thistle, Canada  
   Cirsium arvense  
 Timothy  
   Phleum pratense  
 Torpedograss\*  
   Panicum repens  
 Trumpet creeper\*  
   Campsis radicans  
 Vaseygrass  
   Paspalum urvillei  
 Wheatgrass, western  
   Agropyron smithii  
 \*Partial Control

This product is not registered in California for use on water bermudagrass, redvine, leafy spurge and trumpet creeper.

See "Directions for Use" and "Mixing, Additives and Application Instructions" sections of this label for labeled uses and specific application instructions.

**Alfalfa**--Apply 1 quart of this product per acre plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Make application after the last hay cutting in the fall. Allow alfalfa to regrow to a height of 6 to 8 inches or more prior to treatment. Applications should be followed with deep tillage at least 7 days after treatment, but before soil freeze-up.

**Alligatorweed**--Apply 4 quarts of this product per acre or apply a 1½ percent solution with hand-held equipment to provide partial control. Apply when most of the plants are in bloom. Repeat applications will be required to maintain such control.

**Bentgrass**--For suppression in grass seed production areas. For ground applications only, apply 1.5 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 10 to 20 gallons of water per acre. Ensure entire crown area has resumed growth prior to a fall application. Bentgrass should be actively growing and have at least 3 inches of growth. Tillage prior to treatment should be avoided. Tillage 7 to 10 days after application is recommended for best results. Failure to use tillage after treatment may result in unacceptable control.

**Bermudagrass**--For control, apply 5 quarts of this product per acre and, for partial control, apply 3 quarts per acre. Treat when bermudagrass is actively growing and seedheads are present. Retreatment may be necessary to maintain control. Allow 7 or more days after application before tillage.

**Bermudagrass, water (knotgrass)**--Apply 1.5 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 5 to 10 gallons of water per acre. Apply when water bermudagrass is actively growing and 12 to 18 inches in length. Allow 7 or more days before tilling, flushing or flooding the field.

**Fall applications only** - Apply 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 5 to 10 gallons of water per acre. Fallow fields should be tilled prior to application. Apply prior to frost on water bermudagrass that is actively growing and 12 to 18 inches in length. Allow 7 or more days before tillage.

**Bindweed, field**--For control, apply 4 to 5 quarts of this product

per acre west of the Mississippi River and 3 to 4 quarts east of the Mississippi River. Apply when the weeds are actively growing and are at or beyond full bloom. Do not treat when weed is under drought stress as good soil moisture is necessary for active growth. For best results, apply in late summer or fall. Fall treatments must be applied before a killing frost. Allow 7 or more days after application before tillage.

Also for control, apply 2 quarts of this product plus 0.5 pound a.i. of Banvel in 10 to 20 gallons of water per acre. At these rates, apply using ground application only.

The following tank mixtures with 2,4-D may be applied using aerial application equipment (except in California) in fallow and reduced tillage systems only.

For suppression on irrigated agricultural land apply 1 to 2 quarts of this product plus 1 pound a.i. of 2,4-D in 10 to 20 gallons of water per acre with ground equipment only. Applications should be made following harvest or in fall fallow ground when the bindweed is actively growing and the majority of runners are 12 inches or more in length. The use of at least one irrigation will promote active bindweed growth.

For suppression, apply 16 fluid ounces of this product plus 0.5 pound a.i. of 2,4-D plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications. Applications should be delayed until maximum emergence has occurred and when vines are between 6 to 18 inches in length.

In California only, apply 1 to 5 quarts of this product per acre. Actual rate needed for suppression or control will vary within this range depending on local conditions. Also, for more specific use recommendations for California refer to the following paragraph:

For suppression on irrigated land where annual tillage is performed, apply 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to actively growing bindweed that has reached a length of 12 inches or greater. Allow maximum weed emergence and runner growth. Do not treat when weeds are under drought stress as good soil moisture is necessary for active growth. Allow 3 or more days after application before tillage.

~~Bindweed, field/Blueweed, Texas—Apply 4 to 5 quarts of this product per acre west of the Mississippi River and 3 to 4 quarts per acre east of the Mississippi River. Apply when weed is actively growing and is at or beyond full bloom. Do not treat when weed is under drought stress as good soil moisture is necessary for active~~

~~growth. New leaf development indicates active growth. For best results, apply in late summer or fall. Fall treatments must be applied before a killing frost. Allow 7 or more days after application before tillage.~~

~~Bindweed, field (suppression irrigated lands where annual tillage is performed)--Apply 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to actively growing bindweed that has reached a length of 12 inches or greater. Allow maximum weed emergence and runner growth. Do not treat when weed is under drought stress as good soil moisture is necessary for active growth. Allow 3 or more days after application before tillage.~~

Bluegrass, Kentucky / Bromegrass, smooth / Orchardgrass--Apply 2 quarts of this product in 10 to 40 gallons of water per acre when the grasses are actively growing and most plants have reached boot-to-early seedhead stage of development. For partial control in pasture or hay crop renovation, apply 1 to 1½ quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to actively growing plants when most have reached 4 to 12 inches in height. Allow 7 or more days after application before tillage.

Orchardgrass (sods going to no-till corn)--Apply 1 to 1.5 quarts of this product per acre plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to orchardgrass that is a minimum of 12 inches tall for spring applications and 6 inches tall for fall applications. Allow at least three days following application before planting. A sequential application of 3.75 to 4.5 quarts of Lariat® herbicide, or equivalent, will be necessary for optimum results. Lariat should be applied within 3 to 10 days following spring applications to prevent annual weed growth.

Lariat is not registered for use in California.

®Lariat is a registered trademark of Monsanto Company.

~~Blueweed, Texas--Apply 4 to 5 quarts of this product per acre west of the Mississippi River and 3 to 4 quarts per acre east of the Mississippi River. Apply when weed is actively growing and is at or beyond full bloom. Do not treat when weed is under drought stress as good soil moisture is necessary for active growth. New leaf development indicates active growth. For best results, apply in late summer or fall. Fall treatments must be applied before a killing frost. Allow 7 or more days after application before tillage.~~

Brackenfern--Apply 3 to 4 quarts of this product per acre as a broadcast spray or as a 1 to 1½ percent solution with hand-held

equipment. Apply to fully expanded fronds which are at least 18 inches long.

**Bursage, woollyleaf**--For control, apply 2 quarts of this product plus 1 pint of Banvel per acre. For partial control, apply 1 quart of this product plus 1 pint of Banvel per acre. Add 0.5 to 1 percent nonionic surfactant by total spray volume and apply 3 to 20 gallons of water per acre. Apply when plants are producing new active growth which has been initiated by moisture for at least 2 weeks and when plants are at or beyond flowering.

**Canarygrass, reed/Timothy / Wheatgrass, western**--Apply 2 to 3 quarts of this product per acre. For best results, apply to actively growing plants when most have reached the boot-to-head stage of growth. Allow 7 or more days after application before tillage.

**Cogongrass**--Apply 3 to 5 quarts of this product plus 0.5 to 1 percent nonionic surfactant in 10 to 40 gallons of water per acre. Apply when Cogongrass is at least 18 inches tall and actively growing in late summer or fall. Allow 7 or more days after application before tillage or mowing. Due to uneven stages of growth and the dense nature of vegetation preventing good spray coverage, repeat treatments may be necessary to maintain control.

**Dandelion/Dock, curly**--Apply 3 to 5 quarts of this product per acre when plants are actively growing and most have reached the early bud stage of growth. Allow 7 or more days after application before tillage.

Also for control, apply 16 fluid ounces of this product plus 0.5 pound a.i. 2,4-D plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre.

~~**Dogbane, hemp/Knapweed/Horseradish** Apply 4 quarts of this product per acre. Apply when actively growing and when most weeds have reached the late bud to flower stage of growth. Following crop harvest or mowing, allow weeds to regrow to a mature stage prior to treatment. For best results, apply in late summer or fall. Allow 7 or more days after application before tillage.~~ Apply 4 quarts of this product per acre. Apply when actively growing and when most weeds have reached the late bud to flower stage of growth. Following crop harvest or mowing, allow weeds to regrow to a mature stage prior to treatment. For best results, apply in late summer or fall. Allow 7 or more days after application before tillage.

For suppression, apply 16 fluid ounces of this product plus 0.5 pound a.i. of 2,4-D plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications. Delay applications until maximum emergence of dogbane

has occurred.

Fescue, tall--Apply 3 quarts of this product in 10 to 40 gallons of water per acre to actively growing plants when most have reached boot-to-early seedhead stage of development.

Fall applications only--Apply 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to fescue in the fall when actively growing and plants have 6 to 12 inches of new growth. Allow 7 or more days after application before tillage. A sequential application of 1 pint per acre of this product plus nonionic surfactant will improve long-term control and control seedlings germinating after fall treatments or the following spring.

Guineagrass--Apply 3 quarts of this product per acre or use a 1 percent solution with hand-held equipment. Apply to actively growing guineagrass when most has reached at least the 7-leaf stage of growth. Ensure thorough coverage when using hand-held equipment. Allow 7 or more days after application before tillage.

Johnsongrass/Ryegrass, perennial--Apply 1 to 3 quarts of this product per acre. In annual cropping systems apply 1 to 2 quarts of this product per acre. Apply 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Use 2 quarts of this product when applying 10 to 40 gallons of water per acre. In noncrop or areas where annual tillage (no-till), is not performed, apply 2 to 3 quarts of this product in 10 to 40 gallons of water per acre. For best results, apply to actively growing plants when most have reached the boot-to-head stage of growth or in the fall prior to frost. Allow 7 or more days after application before tillage. Do not tank-mix with residual herbicides when using the 1 quart per acre rate.

For burndown of Johnsongrass, apply 1 pint per acre plus 0.5 to 1 percent nonionic surfactant in 3 to 10 gallons of water per acre before the plants reach a height of 12 inches. For this use, allow at least 3 days after treatment before tillage.

Spot Treatment (partial control or suppression)--Apply a 1 percent solution of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume when johnsongrass is 12 to 13 inches in height. Coverage should be uniform and complete.

Kikuyugrass--Apply 2 to 3 quarts of this product per acre. Spray when most kikuyugrass is at least 8 inches in height (3 or 4-leaf stage of growth) and actively growing. Allow 3 or more days after application before tillage.

**Knapweed/Horseradish**--Apply 4 quarts of this product per acre. Apply when actively growing and when most weeds have reached the late bud to flower stage of growth. Following crop harvest or mowing, allow weeds to regrow to a mature stage prior to treatment. For best results, apply in late summer or fall. Allow 7 or more days after application before tillage.

**Lantana**--Apply this product as a 1 to 1½ percent solution using hand-held equipment only. Apply to actively growing lantana at or beyond the bloom stage of growth. Use the higher application rate for plants that have reached the woody stage of growth. Allow 7 or more days after application before tillage.

**Milkweed, common**--Apply 3 quarts of this product per acre. Apply when actively growing and most of the milkweed has reached the late bud to flower stage of growth. Following small grain harvest or mowing, allow milkweed to regrow to a mature stage prior to treatment. Allow 7 or more days after application before tillage.

**Muhly, wirestem**--Apply 1 to 2 quarts of this product per acre. Use 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Use 2 quarts of this product when applying 10 to 40 gallons of water per acre or in pasture, sod, or noncrop areas. Spray when the wirestem muhly is 8 inches or more in height and actively growing. Do not till between harvest and fall applications or in the fall or spring prior to spring applications. Allow 3 or more days after application before tillage. This product will not provide residual control of wirestem muhly from seeds which germinate after application of this product. Do not tank mix with residual herbicides when using the 1 quart per acre rate.

**Nightshade, silverleaf**--For control, apply 2 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Applications should be made when at least 60 percent of the plants have berries. Fall treatments must be applied before a killing frost. Allow 7 or more days after application before tillage. Do not treat when weed is under drought stress as good soil moisture is necessary for active growth.

~~**Nutsedge: purple, yellow** Apply 3 quarts of this product per acre as a broadcast spray, or apply a 1 percent solution from hand-held equipment to control existing nutsedge plants and immature nutlets attached to treated plants. Treat when plants are in flower or when new nutlets can be found at rhizome tips. Nutlets which have not germinated will not be controlled and may germinate following treatment. Repeat treatments will be required for long term control. Wait 7 days after treatment before tillage. Tillage will stimulate nutlet germination.~~

~~Apply 1 pint to 1 quart of this product per acre, plus 0.5 to 1~~



~~percent nonionic surfactant in 3 to 40 gallons of water per acre to provide suppression or partial control of existing nutsedge plants. Treat when plants have 3 to 5 leaves (less than 6 inches). Repeat treatments will be required to control subsequent emerging plants. Wait 7 days after treatment before tillage or mowing.~~

**Nutsedge: purple, yellow**--Apply 3 quarts of this product per acre as a broadcast spray, or apply a 2 percent solution from hand-held equipment to control existing nutsedge plants and immature nutlets attached to treated plants. Treat when plants are in flower or when new nutlets can be found at rhizome tips. Nutlets which have not germinated will not be controlled and may germinate following treatment. Repeat treatments will be required for long-term control of ungerminated tubers.

Sequential applications of 1 to 2 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre will provide control. Make applications when a majority of the plants are in the 3 to 5 leaf stage (less than 6 inches tall). Repeat this application, as necessary, when newly emerging plants reach the 3 to 5 leaf stage. Subsequent applications will be necessary for long-term control.

For suppression to partial control of existing plants, apply 1 pint to 2 quarts of this product per acre, plus 0.5 to 1 percent nonionic surfactant in 3 to 40 gallons of water per acre. Treat when plants have 3 to 5 leaves and most are less than 6 inches tall. Repeat treatments will be required to control subsequent emerging plants or regrowth of existing plants. Wait 7 days after treatment before tillage or mowing.

For improved control of existing nutsedge plants, apply 1 to 3 quarts of this product plus 8 to 16 fluid ounces of Goal per acre plus 0.5 to 1 percent nonionic surfactant in 3 to 40 gallons of water per acre. Treat when plants have 3 to 5 leaves and most are less than 6 inches tall. Repeat treatments will be required to control subsequent emerging plants or regrowth of existing plants. Wait 7 days after treatment before tillage or mowing.

**Pampas**--Apply this product as a 1½ to 2 percent solution using hand-held equipment. Apply to plants that are actively growing at or beyond the boot stage of growth. Thorough coverage is necessary for best control.

**Phragmites**--For partial control of phragmites in Florida and the counties of other states bordering the Gulf of Mexico, apply 5 quarts per acre as a broadcast spray or apply a 2 percent solution from hand-held equipment. In other areas of the U.S., apply 3 quarts per acre as a broadcast spray or apply a 1 percent solution from hand-held equipment for partial control. For best results, treat during late summer or fall months or when plants are actively



growing and in full bloom. Treatment before or after this stage may lead to reduced control. Due to the dense nature of the vegetation, which may prevent good spray coverage or uneven stages of growth, repeat treatments may be necessary to maintain control. Visual control symptoms will be slow to develop.

**Quackgrass--In Annual Cropping Systems, or in Pastures and Sods Followed by Deep Tillage:** Apply 1 to 2 quarts of this product per acre. For the one quart rate, apply 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. For the 2 quart rate, apply in 10 to 40 gallons of water per acre. Do not tank mix with residual herbicides when using the 1 quart rate. Spray when quackgrass is 6 to 12 inches in height and actively growing. Do not till between harvest and fall applications or in fall or spring prior to spring application. Allow 3 or more days after application before tillage. In pastures or sods, for best results use a moldboard plow.

**Quackgrass--Pasture or Sod or Other Noncrop Areas Where Deep Tillage is Not Planned Following Application:** Apply 2 to 3 quarts in 10 to 40 gallons of water per acre. Spray when the quackgrass is greater than 8 inches tall and actively growing. Do not till between harvest and fall application or in fall or spring prior to spring application. Allow 3 or more days after application before tillage.

**Redvine--**For suppression, apply 24 fluid ounces of this product per acre at each of two applications 7 to 14 days apart or a single application of 2 quarts per acre. Apply recommended rates in 5 to 10 gallons of water per acre plus 0.5 to 1 percent nonionic surfactant by total volume. Apply to actively growing plants in late September or early October, which are at least 18 inches tall and have been growing 45 to 60 days since the last tillage operation. Make applications at least one week before a killing frost.

**Reed, giant--**For control of giant reed, apply a 2 percent solution of this product when plants are actively growing. Best results are obtained when applications are made in late summer to fall.

**Smartweed, swamp--**Apply 3 to 5 quarts of this product per acre when plants are actively growing and most have reached the early bud stage of growth. Allow 7 or more days after application before tillage.

Also for control, apply 16 fluid ounces of this product plus 0.5 pound active ingredient of 2,4-D plus 0.5 to 1 percent nonionic surfactant by total volume in 3 to 10 gallons of water per acre in the late summer or fall. Apply when plants are actively growing and most have reached the early bud stage of growth. Allow 7 or more days after application before tillage.

**Spurge, leafy**--For suppression, apply 16 fluid ounces of this product plus 0.5 pound active ingredient 2,4-D plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre in the late summer or fall. Apply when plants are actively growing. If mowing has occurred prior to treatment, apply when most of the plants are 12 inches tall. Allow 7 or more days after application before tillage.

**Sweet Potato, wild**--Apply this product as a 2 percent solution using hand-held equipment. Apply to actively growing weeds that are at or beyond the bloom stage of growth. Repeat applications will be required. Allow the plant to reach the recommended stage of growth before retreatment. Allow 7 or more days before tillage.

**Thistle, Canada**--Apply 2 to 3 quarts of this product per acre. Apply to actively growing thistles when most are at or beyond the bud stage of growth. After harvest, mowing or tillage in the late summer or fall, allow at least 4 weeks for initiation of active growth and rosette development prior to the application of this product. Fall treatments must be applied before a killing frost. Allow 3 or more days after application before tillage.

For suppression of Canada thistle, apply 1 quart per acre of this product, or 1 pint of this product plus 0.5 pound a.i. 2,4-D per acre, plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre in the late summer or fall after harvest, mowing or tillage. Allow rosette regrowth to a minimum of 6 inches in diameter before treating. Applications can be made as long as leaves are still green and plants are actively growing at the time of application. Allow 3 or more days after application before tillage.

**Torpedograss**--Apply 4 to 5 quarts of this product per acre to provide partial control of torpedograss. Apply to actively growing torpedograss when most plants are at or beyond the seedhead stage of growth. Repeat applications will be required to maintain control. Fall treatments must be applied before frost. Allow 7 or more days after application before tillage.

**Trumpetcreeper**--For control, apply 2 quarts of this product per acre in 5 to 10 gallons of water per acre. Apply to actively growing plants in late September or October, which are at least 18 inches tall and have been growing 45 to 60 days since the last tillage operation. Make applications at least 1 week before a killing frost.

**Other perennials listed on this label**--Apply 3 to 5 quarts of this product per acre. Apply when actively growing and most have reached early head or early bud stage of growth. Allow 7 or more days after application before tillage.

## **TANK MIXTURES**

When applied as directed, under the conditions described, Roundup plus Banvel or 2,4-D amine will suppress or control the following perennial broadleaf weed:

### **Bindweed, field**

~~Convolvulus arvensis~~

For suppression, apply 16 ounces of this product plus 0.5 lb a.e. of 2,4-D amine or 0.25 lb a.i. of Banvel, plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications. Applications should be delayed until maximum emergence has occurred and when vines are between 6 to 18 inches in length. These tank mixtures may be applied using aerial application equipment (except in California) in fallow and reduced tillage systems only.

For control, apply 2 quarts of this product plus 0.5 pound a.i. of Banvel in 10 to 20 gallons of water per acre. At these rates, apply using ground application equipment only.

### **Irrigated Agricultural Lands**

Apply 1 to 2 quarts of this product plus 1 quart per acre of 2,4-D amine in 10 to 20 gallons of water per acre with ground equipment only for partial control (suppression) of field bindweed. Applications should be made following harvest or in fall fallow ground when the bindweed is actively growing and the majority of runners are 12 inches or more in length. The use of at least one irrigation will promote active bindweed growth.

### **Dogbane, hemp**

~~Apocynum cannabinum~~

For suppression, apply 16 ounces of this product plus 16 ounces of 2,4-D amine plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications. Delay applications until maximum emergence of dogbane has occurred. For control, apply 4 quarts of this product in 3 to 20 gallons of water using ground application equipment only.

### **Smartweed, Swamp**

~~Polygonum coccineum~~

For control, apply 16 ounces of this product plus 0.5 pounds active ingredient of 2,4-D amine plus 0.5 to 1 percent nonionic surfactant

~~by total volume in 3 to 10 gallons of water per acre in the late summer or fall. Apply when plants are actively growing and most have reached the early bud stage of growth. Allow 7 or more day after application before tillage.~~

~~Refer to the specific product labels for crop rotation restrictions and cautionary statements of all products in tank mixture.~~

#### WOODY BRUSH AND TREES

When applied as recommended under the conditions described, this product CONTROLS or PARTIALLY CONTROLS the following woody brush, plants and trees:

**Alder**

*Alnus spp.*

**Ash\***

*Fraxinus spp.*

**Aspen, quaking**

*Populus tremuloides*

**Bearmat (Bearclover)**

*Chamaebatia foliolosa*

**Birch**

*Betula spp.*

**Blackberry**

*Rubus spp.*

**Broom:**

**French**

*Cytisus monspessulanus*

**Scotch**

*Cytisus scoparius*

**Buckwheat, California\***

*Eriogonum fasciculatum*

**Cascara\***

*Rhamnus purshiana*

**Catsclaw\***

*Acacia greggi*

**Ceanothus\***

*Ceanothus spp.*

**Chamise**

*Adenostoma fasciculatum*

**Cherry:**

**Bitter**

*Prunus emarginata*

**Black**

*Prunus serotina*

**Pin**

*Prunus pensylvanica*

**Coyote brush**

*Baccharis consanguinea*

**Creeper, Virginia\***

*Parthenocissus quinquefolia*

**Dewberry**

*Rubus trivialis*

**Elderberry**

*Sambucus spp.*

**Elm\***

*Ulmus spp.*

**Eucalyptus, Bluegum**

*Eucalyptus glotulus*

**Hasardia\***

*Haplopappus squamosus*

**Hawthorn**

*Crataegus spp.*

**Hazel**

*Corylus spp.*

**Honeysuckle**

*Lonicera spp.*

**Kudzu**

*Pueraria lobata*

**Locust, black\***

*Robinia pseudoacacia*

**Madrone**

*Arbutus menziesii*

**Manzanita**

*Arctostaphylos* spp.

**Maple:**

**Red\*\***

*Acer rubrum*

**Sugar**

*Acer saccharum*

**Vine\***

*Acer circinatum*

**Monkey Flower\***

*Mimulus guttatus*

**Oak:**

**Black\***

*Quercus velutina*

**Northern Pin**

*Quercus palustris*

**Post**

*Quercus stellata*

**Red**

*Quercus rubra*

**Southern Red**

*Quercus falcata*

**White\***

*Quercus alba*

**Persimmon\***

*Diospyros* spp.

**Poison Ivy**

*Rhus radicans*

**Poison Oak**

*Rhus toxicodendron*

**Poplar\*, yellow**

*Liriodendron tulipifera*

**Raspberry**

*Rubus spp.*

**Rose, multiflora**

*Rosa multiflora*

**Russian-olive\*\*\***

*Elaeagnus angustifolia*

**Sage, black**

*Salvia mellifera*

**Sagebrush, California**

*Artemisia californica*

**Salmonberry**

*Rubus spectabilis*

**Sassafras**

*Sassafras albidum*

**Sourwood**

*Oxydendrum arboreum*

**Sumac:**

**Poison\***

*Rhus vernix*

**Smooth\***

*Rhus glabra*

**Winged\***

*Rhus copallina*

**Sweetgum**

*Liquidambar styraciflua*

**Swordfern\***

*Polystichum munitum*

**Tallowtree, Chinese**

*Sapium sebiferum*

**Tan Oak**

*Lithocarpus densiflorus*

**Thimbleberry**

*Rubus parviflorus*

**Tobacco, tree\***

*Nicotiana glauca*

Trumpetcreeper  
*Campsis radicans*

Willow  
*Salix* spp.

- \* Partial control
- \*\* See below for control or partial control instructions.
- \*\*\* This product is not registered in California for use on Russian-olive.

NOTE: If brush has been mowed or tilled or trees have been cut, do not treat until regrowth has reached the recommended stages of growth.

Apply this product when plants are actively growing and, unless otherwise directed, after full leaf expansion. Use the higher rate for larger plants and/or dense areas of growth. On vines, use the higher rate for plants that have reached the woody stage of growth. Best results are obtained when application is made in late summer or fall after fruit formation.

In arid areas, best results are obtained when application is made in the spring to early summer when brush species are at high moisture content and are flowering.

Ensure thorough coverage when using hand-held equipment. Symptoms may not appear prior to frost or senescence with fall treatments.

Allow 7 or more days after application before tillage, mowing or removal. Repeat treatments may be necessary to control plants regenerating from underground parts or seed. Some autumn colors on undesirable deciduous species are acceptable provided no major leaf drop has occurred. Reduced performance may result if fall treatments are made following a frost.

See "Directions for Use", and "Mixing, Additives, and Application Instructions" sections of this label for labeled uses and specific application instructions.

Apply this product as follows to control or partially control the following woody brush and trees.

Alder/Dewberry/Honeysuckle/Post Oak/Raspberry-For control, apply 3 to 4 quarts per acre of this product as a broadcast spray or as a 1 to 1½ percent solution with hand-held equipment.

Aspen, quaking/Cherry: bitter, black, pin/Hawthorn /Oak, southern red/Sweetgum/Trumpetcreeper- For control, apply 2 to 3 quarts of this product per acre as a broadcast spray or as a 1 to 1½ percent



solution with hand-held equipment.

**Birch/Elderberry/Hazel/Salmonberry/Thimbleberry**—For control, apply 2 quarts per acre of this product as a broadcast spray or as a 1 percent solution with hand-held equipment.

**Blackberry**—For control, apply 3 to 4 quarts per acre of this product as a broadcast spray, or 1 to 1½ percent solution with hand-held equipment. Make application after plants have reached full leaf maturity. Best results are obtained when applications are made in late summer or fall. After berries have set or dropped in late fall, blackberry can be controlled by applying a ¾ percent solution of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume with hand-held equipment. For control of blackberries after leaf drop and until killing frost or as long as stems are green, apply 3 to 4 quarts of this product in 10 to 40 gallons of water per acre.

**Broom: French, Scotch**—For control, apply a 1½ to 2 percent solution with hand-held equipment.

**Buckwheat, California/Hasardia/Monkey Flower/ Tobacco, tree**—For partial control of these species, apply a 1 to 2 percent solution of this product as a foliar spray with hand-held equipment. Thorough coverage of foliage is necessary for best results.

**Catsclaw**—For partial control, apply as a 1 to 1½ percent solution with hand-held equipment.

**Coyote Brush**—For control, apply a 1½ to 2 percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.

**Eucalyptus/Bluegum**—For control of eucalyptus resprouts, apply a 2 percent solution of this product with hand-held equipment when resprouts are 6 to 12 feet tall. Ensure complete coverage. Apply when plants are growing actively. Avoid application to drought-stressed plants.

**Kudzu**—For control, apply 4 quarts of this product per acre as a broadcast spray or as a 2 percent solution with hand-held equipment. Repeat applications will be required to maintain control.

**Madrone resprouts**—For suppression or partial control, apply a 2 percent solution of this product to resprouts less than 3 to 6 feet tall. Best results are obtained with spring/early summer treatments.

**Maple, red\*\***—For control, apply as a 1 to 1½ percent solution with hand-held equipment when at least 50 percent of the new leaves are

fully developed. For partial control, apply 2 to 4 quarts of this product per acre as a broadcast spray.

**Maple, sugar/Oak, northern pin/Oak red**—For control, apply as a 1 to 1½ percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.

**Poison Ivy/Poison Oak**—For control, apply 4 to 5 quarts of this product per acre as a broadcast spray or as a 2 percent solution with hand-held equipment. Repeat applications may be required to maintain control. Fall treatments must be applied before leaves lose green color.

**Rose, multiflora**—For control, apply 2 quarts of this product per acre as a broadcast spray or as a 1 percent solution with hand-held equipment. Treatments should be made prior to leaf deterioration by leaf-feeding insects.

**Sage, black/Sagebrush, California/Chamise/Tallowtree, Chinese**—For control of these species, apply a 1 percent solution of this product as a foliar spray with hand-held equipment. Thorough coverage of foliage is necessary for best results.

**Tan oak resprouts**—For suppression or partial control, apply a 2 percent solution of this product to resprouts less than 3 to 6 feet tall. Best results are obtained with fall applications.

**Willow**—For control, apply 3 quarts of this product per acre as a broadcast spray or as a 1 percent solution with hand-held equipment.

**Other Woody Brush and Trees listed on this label**—For partial control, apply 2 to 4 quarts of this product per acre as a broadcast spray or as a 1 to 2 percent solution with hand-held equipment.

---

### NONCROP USES

---

See 'General Information' and 'Mixing, Additives and Application Instructions' sections of this label for essential product performance information and the following 'Noncrop' sections for specific recommended uses.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF SPRAY WITH FOLIAGE OF DESIRABLE TURFGRASSES, TREES, SHRUBS, OR OTHER DESIRABLE VEGETATION SINCE SEVERE DAMAGE OR DESTRUCTION MAY RESULT.

NOTE: If spraying areas adjacent to desirable plants, use a shield made of cardboard, sheet metal or plyboard while spraying to help prevent spray from contacting foliage of desirable plants.

Repeat treatments may be necessary to control weeds regenerating from underground parts or seeds.

This product does not provide residual weed control. For subsequent weed control, follow a label-approved herbicide program.

Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

---

### INDUSTRIAL, RECREATIONAL AND PUBLIC AREAS

---

When applied as directed for 'Noncrop Uses', under conditions described, this product controls annual and perennial weeds listed on this label growing in areas such as airports, ditch banks, dry ditches, dry canals, fencerows, golf courses, highways, industrial plant sites, lumber yards, parking areas, parks, petroleum tank farms and pumping installations, pipelines, power and telephone rights-of-way, railroads, roadsides, schools, storage areas, other public areas and similar industrial or noncrop areas.

For specific rates of application and instructions for control of various annual and perennial weeds and woody brush and trees, see the 'Weeds Controlled' section of this label.

This product may be applied with recirculating sprayers, shielded applicators, or wiper applicators in any noncrop site specified on this label. See the 'Selective Equipment part of 'Application Equipment and Techniques' section of this label for information on proper use and calibration of this equipment.

---

### TANK MIXTURES FOR

---

**INDUSTRIAL SITES AND  
FORESTRY SITE PREPARATIONS**

---

■ **MON-35085 plus OUST™** ■

Use on industrial sites including airports, industrial plants, lumberyards, petroleum tank farms, pumping stations, pipelines, railroads, roadsides, storage areas or other similar sites where bare ground is desired.

This tank mixture may also be used as a site preparation treatment for sites to be planted to jack pine, loblolly pine, red pine, slash pine and Virginia pine.

When applied as directed for 'Noncrop Uses' under the conditions described, this product plus Oust provides control of annual weeds listed in the 'Weeds Controlled' section of the label for this product and Oust, and control or partial control of the perennial weeds listed below.

Apply 1 to 2 quarts of this product with 2 to 4 ounces of Oust in 10 to 40 gallons of spray solution per acre as a broadcast spray to actively growing weeds.

This mixture may be applied by aerial equipment in site prep operations. When applied by air, use the recommended rates in 5 to 15 gallons of spray solution per acre.

This product plus Oust tank mixtures may not be applied by air in California.

For control of annual weeds, use the lower rates of these products.

For control of the listed perennial weeds, use the higher rates of both products. For partial control, use the lower rates.

**Bahiagrass**

*Paspalum notatum*

**Bermudagrass\***

*Cynodon dactylon*

**Broomsedge**

*Andropogon virginicus*

**Dock, curly**

*Rumex crispus*

**Dogfennel**

*Eupatorium capilliflorum*

Fescue, tall  
*Festuca arundinacea*

Johnsongrass\*\*  
*Sorghum halepense*

Poorjoe\*\*  
*Diodia teres*

Quackgrass  
*Agropyron repens*

Trumpetcreeper\*  
*Campsis radicans*

Vaseygrass  
*Paspalum urvillei*

Vervain, blue  
*Verbena hastata*

\*Suppression at the higher rates only.

\*\*Control at the lower rates.

Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

"Oust is a trademark of E. I. du Pont de Nemours and Company.

---

TANK MIXTURES  
NONCROP SITES

---

When applied as a tank mixture, this product provides control of the emerged annual weeds and partial control of the emerged perennial weeds listed in this label. When applied as a tank mixture, the following residual herbicides will provide preemergence control of the weeds listed in the individual product labels.

- MON-35085 plus DIURON ■
- MON-35085 plus KROVAR™ I ■
- MON-35085 plus KROVAR II ■
- MON-35085 plus RONSTAR™ 50WP ■
- MON-35085 plus SIMAZINE, ■

## PRINCEP™ CALIBER™ 90

- MON-35085 plus SIMAZINE 4L ■
- MON-35085 plus SIMAZINE 80W ■
- MON-35085 plus SURFLAN™ 75W ■
- MON-35085 plus SURFLAN AS ■

When tank mixing with residual herbicides, add an agriculturally approved nonionic surfactant at 0.5 to 1 percent by volume of spray solution. See the 'Mixing, Additives and Application Instructions' section of this label before preparing these tank mixtures.

Read and carefully observe the label claims, cautionary statements, recommended use rates and all other information on the labels of all products used in these tank mixtures. Use according to the most restrictive label directions for each product in the mixture.

### CONTROL OF EMERGED WEEDS

**Annual Weeds**—Apply 1 quart per acre of this product in these tank mixtures when weeds are less than 6 inches tall and 1½ quarts per acre when weeds are more than 6 inches tall.

**Perennial Weeds**—For partial control of perennial weeds using these tank mixtures, apply 2 to 5 quarts per acre of this product. Follow the recommendations in the 'Weeds Controlled' section of this label for stage of growth and rate of application for specific perennial weeds.

### PREEMERGENCE WEED CONTROL

~~The following are the labeled rates for the recommended residual herbicides for noncrop uses:~~

| PRODUCT                      | RATE/ACRE          |
|------------------------------|--------------------|
| Diuron, Karmex™ DF           | 2 to 8 lbs         |
| Krevar I                     | 4 to 6 lbs         |
| Krevar II                    | 2 to 5 lbs         |
| Ronstar 50WP                 | 4 to 8 lbs         |
| Simazine, Princep-Caliber 90 | 5.3 to 11.1 lbs    |
| Simazine-80W                 | 6 to 12 1/2 lbs    |
| Simazine 4L                  | 4.8 to 10 qts      |
| Surflan 75W                  | 2 2/3 to 5 1/3 lbs |

For preemergence weed control, refer to the individual product labels for specific noncrop sites, rates, carrier volumes and precautionary statements.

Mix only the quantity of spray solution which can be used during the same day. Do not allow these tank mixtures to stand overnight as this may result in reduced weed control.

APPLY THESE TANK MIXTURES THROUGH CONVENTIONAL BROADCAST EQUIPMENT ONLY.

"Princep and Caliber is a trademark of Ciba-Geigy Corporation.

"Karmex and "Krovar are trademarks of E.I. du Pont de Nemours and Company.

"Ronstar is a trademark of Rhone-Poulenc, Inc.

"Surflan is a trademark of Elanco Products Company.

#### FARMSTEAD WEED CONTROL

When applied as directed for "Noncrop Uses", under conditions described, this product controls undesirable vegetation listed on this label around farmstead building foundations, along and in fences, shelterbelts, and for general nonselective farmstead weed control.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "Weeds Controlled" section of this label.

#### ORNAMENTALS

THIS PRODUCT IS NOT RECOMMENDED FOR USE AS AN OVER-THE-TOP BROADCAST SPRAY IN ORNAMENTALS.

~~When applied as directed for the conditions described for "Noncrop Uses", this product controls undesirable vegetation listed on this label prior to planting ornamentals, in established ornamentals, and within and around greenhouses and shadehouses. When applied as instructed for the conditions described for "Noncrop Uses", this product controls undesirable vegetation listed on this label prior to planting ornamentals, within and around greenhouses and shadehouses, and as a postdirected spray around established ornamentals.~~

For specific rates of application and instructions for control of various annual and perennial weeds, see the "Weeds Controlled" section of this label.

Where repeat applications are necessary, do not exceed 10.6 quarts of this product per acre per year.

**Site Preparation**—Following preplant applications of this product, any ornamental species may be planted. Precautions should be taken to protect nontarget plants during site preparation applications.

**Greenhouse/Shadehouse Use**—This product may be used to control weeds listed on this label which are growing in greenhouses. Desirable vegetation must not be present during application and air circulation fans must be turned off.

**Postdirected Spray**—Use as a postdirected spray ~~toward the base of~~ around established woody ornamentals species such as those listed below. Care must be exercised to avoid contact of spray, drift or mist with foliage of or green bark of established ornamental species.

**Arborvitae**  
*Thuja spp.*

**Azalea**  
*Rhododendron spp.*

**Boxwood**  
*Buxus spp.*

**Crabapple**  
*Malus spp.*

**Euonymus**  
*Euonymus spp.*

**Fir**  
*Abies spp.*  
*Pseudotsuga spp.*

**Jujuba**  
*Simmondsia chinensis*

**Hollies**  
*Ilex spp.*

**Lilac**  
*Syringa spp.*

**Magnolia**



*Magnolia* spp.

Maple  
*Acer* spp.

Oak  
*Quercus* spp.

Privet  
*Ligustrum* spp.

Pine  
*Pinus* spp.

Spruce  
*Picea* spp.

Yew  
*Taxus* spp.

---

SILVICULTURAL SITES,  
RIGHTS-OF-WAY  
and CHRISTMAS TREES

---

NOTE: NOT RECOMMENDED FOR USE AS AN OVER-THE-TOP BROADCAST SPRAY  
IN SILVICULTURAL NURSERIES, OR CHRISTMAS TREE PLANTATIONS.

When applied as directed for "Noncrop Uses" under conditions described, this product controls undesirable vegetation listed on this label. This product also suppresses or controls undesirable vegetation listed on this label when applied at recommended rates for release of established coniferous species listed on this label.

For specific rates of application and instructions for control of various brush, annual and perennial weeds, see the "Weeds Controlled" section of this label. For specific rates of application for release of listed coniferous species, see the "Conifer Release" part of this section of the label.

Where repeat applications are necessary, do not exceed 10.6 quarts of this product per acre per year.

**Aerial Application**—This product may be applied using aerial spray equipment for silvicultural site preparation, conifer release and rights-of-way treatments. See the "Application Equipment and Techniques" part of the "Mixing, Additives and Application Instructions" section of this label for information on how to properly spray apply this product by air.

DO NOT APPLY THIS PRODUCT BY AIR TO RIGHTS-OF-WAY SITES IN THE

## STATE OF CALIFORNIA.

In order to reduce the aerial application drift hazard to aquatic sites\*, to nontarget sites, or any site containing desirable vegetation, always maintain appropriate buffer zones. A buffer zone of the following minimum distances should be maintained:

- Helicopters using a Microfoil™ boom, a Thru-Valve™ boom (TVB-45), or equivalent drift control systems, should maintain at least a 50-foot buffer zone.
- When using other aerial equipment:
  1. Maintain at least a 75-foot buffer zone for applications using 2 quarts or less per acre of this product.
  2. Maintain at least a 125-foot buffer zone for applications using more than 2 quarts per acre of this product.
  3. Maintain at least a 400-foot buffer zone for applications on rights-of-way when applied from 75 feet or more above ground level.

These distances should be increased if conditions favoring drift exist.

\* Aquatic sites include all lakes, ponds, and streams used for significant domestic purposes or angling.

™Microfoil is a trademark of Union Carbide Agricultural Products, Inc.

™Thru-Valve is a trademark of Waldrum Specialties, Inc.

### SITE PREPARATION

Following preplant applications of this product, any silvicultural species may be planted.

### POSTDIRECTED SPRAY

In established silvicultural sites, use as a spray on the foliage of undesirable vegetation. Care must be exercised to avoid contact of spray, drift or mist with foliage or green bark of desirable species.

### CONIFER RELEASE

For release, apply only where conifers have been established for more than one year. Vegetation should not be disturbed prior to

treatment or until visual symptoms appear after treatment. Symptoms of treatment are slow to appear, especially in woody species treated in late fall. Injury may occur to conifers treated for release, especially where spray patterns overlap or the higher rates are applied or when applications are made during periods of active conifer growth. Do not use additional surfactant with conifer release applications.

Applications must be made after formation of final conifer resting buds in the fall or prior to initial bud swelling in spring. Some autumn colors on undesirable deciduous species are acceptable provided no major leaf drop has occurred. Use the following rates for conifer release to control or partially control the weeds listed in the "Weeds Controlled" section of this label.

For release of the following conifer species:

Douglas fir

*Pseudotsuga menziesii*

Fir

*Abies spp.*

Hemlock

*Tsuga spp.*

Pines\*

*Pinus spp.*

Spruce

*Picea spp.*

\* Includes all species except eastern white pine, loblolly pine or slash pine.

Apply 1½ to 2 quarts of this product per acre except in Washington and Oregon, west of the crest of the Cascade Mountains. For spring treatments west of the crest of the Cascade Mountains, apply 1 quart of this product per acre before conifer bud swell for control of annual weeds. For fall treatments in Washington and Oregon, west of the crest of the Cascade Mountains, apply 1 to 1½ quarts of this product per acre before any major leaf drop of deciduous species.

For release of western hemlock, apply 1 quart of this product per acre.

For release of the following conifer species:

Loblolly pine

*Pinus taeda*

Eastern white pine  
*Pinus strobus*

Slash pine  
*Pinus elliottii*

Late Season Application—Apply 1½ to 2 quarts of this product in a minimum of 5 gallons of spray solution per acre during early autumn. Applications made prior to September 1 or when conditions are conducive to rapid growth of conifers will ~~result in~~ create the potential for increased injury in the form of tip and/or needle burn. Injury may decrease with later applications. Some autumn colors are acceptable at time of application. Apply prior to frost or leaf drop of undesirable plants. Applications made according to label directions will release loblolly pine, eastern white pine and slash pine by reducing competition from the following species:

Ash  
*Fraxinus spp.*

Cherry:  
Black  
*Prunus serotina*

Pin  
*Prunus pensylvanica*

Elm  
*Ulmus spp.*

Hawthorn  
*Crataegus spp.*

Locust, black  
*Robina pseudoacacia*

Maple, red  
*Acer rubra*

Oak:  
Black  
*Quercus velutina*

Post  
*Quercus stellata*

Southern Red  
*Quercus falcata*

White  
*Quercus alba*

Persimmon  
*Diospyros* spp.

Poplar, yellow  
*Liriodendron tulipifera*

Sassafras  
*Sassafras albidum*

Sourwood  
*Oxydendrum arboreum*

Sumac:  
Poison  
*Rhus vernix*

Smooth  
*Rhus glabra*

Winged  
*Rhus copallina*

Sweetgum  
*Liquidambar styraciflua*

Apply only to those sites where woody brush and trees listed in this label constitute the majority of the undesirable species.

■ **MON-35085 plus Oust Tank Mixtures** ■  
**for Conifer Release from Herbaceous Weeds**

To release loblolly pines from herbaceous weeds, tank mixtures of this product with Oust will provide control of annual weeds listed in the "Weeds Controlled" section of this and the Oust label, and partial control of the perennial weeds listed below.

Apply 16 to 24 fluid ounces of this product with 2 to 4 ounces of Oust in 10 to 30 gallons of spray solution per acre. Make application to actively growing weeds as a broadcast spray over the top of the young loblolly pines.

This product plus Oust tank mixtures may not be applied by air in California.

This tank mixture may be applied using aerial equipment. When applying by air, use the recommended rate in 5 to 15 gallons of spray solution per acre.

For control of annual weeds below 12 inches in height (or runner length on annual vines), use the low rates of both products. Use

the higher rates of both products when annual weeds are in more advanced stages of growth and approaching flower or seed formation.

Use the higher rates of both products for partial control of the following perennial weeds. Use the lower rates for suppression of growth.

**Bahiagrass**

*Paspalum notatum*

**Broomsedge**

*Andropogon virginicus*

**Dock, curly**

*Rumex crispus*

**Dogfennel**

*Eupatorium capilliflorum*

**Fescue, tall**

*Festuca arundinacea*

**Johnsongrass\*\***

*Sorghum halepense*

**Poorjoe\*\***

*Diodia teres*

**Trumpet creeper\***

*Campsis radicans*

**Vaseygrass**

*Paspalum urvillei*

**Vervain, blue**

*Verbena hastata*

\*Suppression at the higher rates only.

\*\*Control at the higher rates.

Pine damage may occur or can be accentuated if treatment takes place when young trees are under stress from drought, flood water, insects or disease.

Read and observe the cautionary statements and all other information appearing on the label of all herbicides used.

**NOTE TO USER**

This product must not be used in areas where adverse impact on

Federally designated endangered/threatened plant or aquatic species is likely.

Prior to making applications, the user of this product must determine that no such species are located in or immediately adjacent to the area to be treated.

#### ■ CUT STUMP TREATMENTS ■

Woody vegetation may be controlled by treating freshly cut stumps of trees and resprouts with this product. Apply this product using suitable equipment to ensure coverage of the entire cambium. Cut vegetation close to the soil surface. Apply a 50 to 100 percent solution of this product to the freshly cut surface immediately after cutting. Delays in application may result in reduced performance. For best results, applications should be made during periods of active growth and full leaf expansion.

When used according to directions for cut stump application, this product will CONTROL, PARTIALLY CONTROL or SUPPRESS many types of woody brush and tree species, some of which are listed below:

**Alder**

*Alnus* spp.

**Eucalyptus/Bluegum**

*Eucalyptus glotulus*

**Madrone**

*Arbutus menziesii*

**Oak**

*Quercus* spp.

**Reed, giant**

*Arundo donax*

**Saltcedar**

*Tamarisk* spp.

**Sweetgum**

*Liquidambar styraciflua*

**Tan Oak**

*Lithocarpus densiflorus*

#### ■ INJECTION AND FRILL APPLICATIONS ■

Woody vegetation may be controlled by injection or frill application of this product. Apply this product using suitable equipment which must penetrate into the living tissue. Apply the equivalent of 1 ml of this product per each 2 to 3 inches of trunk diameter (DBH). This is best achieved by applying 50 to 100 percent concentration of this material either to a continuous frill around the tree or as cuts evenly spaced around the tree below all branches. As tree diameter increases in size, better results are achieved by applying diluted material to a continuous frill or more closely spaced cuttings. Avoid application techniques that allow runoff to occur from frill or cut areas in species that exude sap freely after frills or cutting. In species such as this, make frill or cut at an oblique angle so as to produce a cupping effect and use undiluted material. For best results, application should be made during periods of active growth and after full leaf expansion.

This treatment WILL CONTROL the following woody species:

**Oak**

*Quercus spp.*

**Poplar**

*Populus spp.*

**Sweetgum**

*Liquidambar styraciflua*

**Sycamore**

*Platanus occidentalis*

This treatment WILL SUPPRESS the following woody species:

**Black gum**

*Nyssa sylvatica*

**Dogwood**

*Cornus spp.*

**Hickory**

*Carya spp.*

**Maple, red**

*Acer rubrum*

---

**TURFGRASSES AND GRASSES  
FOR SEED PRODUCTION**

---

**PREPLANT AND RENOVATION**

When applied as directed for 'Noncrop Uses', under conditions



described, this product controls most existing vegetation prior to the planting or renovation of either turfgrasses or grass seed production areas.

For specific rates of application and instructions for control of various annual and perennial weeds, and woody brush and trees, see the "Weeds Controlled" section of this label.

For maximum control of existing vegetation, delay planting to determine if any regrowth from escaped underground plant parts occurs. Where repeat treatments are necessary, sufficient regrowth must be attained prior to application. For warm-season grasses, such as bermudagrass, summer or fall applications provide best control.

DO NOT DISTURB SOIL OR UNDERGROUND PLANT PARTS BEFORE TREATMENT. Tillage or renovation techniques such as vertical mowing, coring or slicing should be delayed for 7 days after application to allow proper translocation into underground plant parts.

#### TURFGRASSES

Where existing vegetation is growing in a field or unmowed situation, apply this product to actively growing weeds at the stages of growth given in the "Weeds Controlled" section of this label.

Where existing vegetation is growing under mowed turfgrass management, apply this product after omitting at least one regular mowing to allow sufficient growth for good interception of the spray.

Desirable turfgrasses may be planted following the above procedures.

#### GRASSES FOR SEED PRODUCTION

Apply this product to actively growing weeds at the stages of growth given in the "Weeds Controlled" section of this label prior to planting or renovation of turf or forage grass areas grown for seed production.

DO NOT feed or graze treated areas within 8 weeks after application.

#### ■ ANNUAL WEED CONTROL IN DORMANT BERMUDAGRASS AND BAHIAGRASS TURF ■

When applied as directed for "Noncrop Uses" under the conditions

described, this product will provide control or suppression of many winter annual weeds and tall fescue for effective release of dormant bermudagrass and bahiagrass turf. Refer to the rate table for MON-35085 alone under the "Release of Bermudagrass and Bahiagrass" section of this label for recommended rates and volumes on the species to be suppressed or controlled. Treat only when turf is dormant and prior to spring greenup. Spot treatments or broadcast applications of this product in excess of 16 fluid ounces per acre may result in injury or delayed greenup in highly maintained turfgrass areas; i.e., golf courses, lawns, etc. DO NOT APPLY TANK MIXTURES of Roundup ~~this product~~ plus Oust in highly maintained turfgrass areas.

---

#### RELEASE OF BERMUDAGRASS OR BAHIAGRASS

---

NOTE: Use only in areas where bermudagrass or bahiagrass are desirable ground covers and where some temporary injury or discoloration can be tolerated. Use Roundup ~~plus Oust~~ tank mixtures of this product plus Oust only on railroads, highways, utility plant sites, or other right-of-way areas.

When applied as directed for "Noncrop Uses" under the conditions described, this product will provide control or suppression of many winter annual weeds and tall fescue for effective release of dormant bermudagrass or bahiagrass. This product may be tank-mixed with Oust as recommended for residual control. Make applications to dormant bermudagrass or bahiagrass. Roundup ~~plus Oust~~ + Tank mixtures of this product plus Oust may delay greenup. To avoid delays in greenup and minimize injury, do not add more than 1 ounce per acre of Oust on bermudagrass or more than  $\frac{1}{2}$  ounce per acre on bahiagrass, or treat when these grasses are in a semi-dormant condition.

For best results on winter annuals, treat when plants are in an early growth stage (below 6 inches in height) after most have germinated. For best results on tall fescue, treat when fescue is in or beyond the 4 to 6-leaf stage.

#### WEEDS CONTROLLED

Rate recommendations for control or suppression of winter annuals and tall fescue are listed below:

Apply the recommended rates of this product alone or as a tank mixture in 10 to 25 gallons of water, plus 0.5 to 1 percent nonionic surfactant by total spray volume per acre.

For the best recommendation for the mixture of weeds within your geographic areas, contact your Monsanto sales representative.

**WEEDS CONTROLLED OR SUPPRESSED  
WITH MON-35085 ALONE\***

NOTE: C = Control  
S = Suppression

| WEED SPECIES                                       | MON-35085 FLUID OZ/ACRE. |    |    |    |    |    |
|--|--------------------------|----|----|----|----|----|
|  | 8                        | 12 | 16 | 24 | 32 | 64 |
| Barley, little<br><i>Hordeum pusillum</i>          | S                        | C  | C  | C  | C  | C  |
| Bedstraw, catchweed<br><i>Galium aparine</i>       | S                        | C  | C  | C  | C  | C  |
| Bluegrass, annual<br><i>Poa annua</i>              | S                        | C  | C  | C  | C  | C  |
| Chervil<br><i>Chaerophyllum tainturieri</i>        | S                        | C  | C  | C  | C  | C  |
| Chickweed, common<br><i>Stellaria media</i>        | S                        | C  | C  | C  | C  | C  |
| Clover, crimson<br><i>Trifolium incarnatum</i>     | •                        | S  | S  | C  | C  | C  |
| Clover, large hop<br><i>Trifolium campestre</i>    | •                        | S  | S  | C  | C  | C  |
| Fescue, tall<br><i>Festuca arundinaceae</i>        | •                        | •  | •  | •  | S  | S  |
| Geranium, Carolina<br><i>Geranium carolinianum</i> | •                        | •  | S  | S  | C  | C  |
| Henbit<br><i>Lamium amplexicaule</i>               | •                        | S  | C  | C  | C  | C  |
| Ryegrass<br>Italian<br><i>Lolium multiflorum</i>   | •                        | •  | S  | C  | C  | C  |
| Speedwell, corn<br><i>Veronica arvensis</i>        | S                        | C  | C  | C  | C  | C  |



|  |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|
| Ryegrass, Italian<br><i>Lolium multiflorum</i> | • | S | S | C | C | C | C |
| Speedwell, corn<br><i>Veronica arvensis</i>    | S | C | C | C | C | C | C |
| Vetch, common<br><i>Vicia sativa</i>           | C | C | C | C | C | C | C |

- \* These rates or mixtures of rates apply only to sites where an established competitive turf is present.

#### RELEASE OF ACTIVELY GROWING BERMUDAGRASS

When applied as directed, this product will aid in the release of bermudagrass by providing control of annual species listed in the "Weeds Controlled" section of this and the Oust label, and suppression or partial control of certain perennial weeds.

For control or suppression of those annual species listed on this label, use 1 to 3 pints of this product as a broadcast spray in 10 to 25 gallons of spray solution per acre. Use the lower rate when treating annual weeds below 6 inches in height (or length of runner in annual vines). Use the higher rate as ~~size of~~ plants ~~size~~ increases or as they approach flower or seedhead formation.

Use the higher rate of this product for partial control of the following perennial species. Use the lower rates for suppression of growth. For best results, see the "Weeds Controlled" section of this label for proper stage of growth.

#### Bahiagrass

*Paspalum notatum*

#### Bluestem, silver

*Andropogon saccharoides*

#### Fescue, tall

*Festuca arundinacea*

#### Johnsongrass\*\*

*Sorghum halepense*

#### Trumpet creeper\*

*Campsis radicans*

#### Vaseygrass

*Paspalum urvillei*

\*Suppression at higher rates only.

**\*\*Control at the higher rates.**

This product may be tank-mixed with Oust. If tank-mixed, use no more than 1 to 2 pints per acre of ~~Roundup herbicide~~ **this product** with 1 to 2 ounces of Oust per acre.

Use the lower rates of both mixtures to control annual weeds below 6 inches in height (or runner length in annual vines) that are listed in the "Weeds Controlled" section of this booklet and the Oust label. Use the higher rates as annual weeds increase in size and approach the flower or seedhead stages.

Use the higher rates of this product to provide partial control of the following perennial weeds. Use the lower rates for suppression of growth.

**Bahiagrass**

*Paspalum notatum*

**Bluestem, silver**

*Andropogon saccharoides*

**Broomsedge**

*Andropogon virginicus*

**Dock, curly**

*Rumex crispus*

**Dogfennel**

*Eupatorium capilliflorum*

**Fescue, tall**

*Festuca arundinacea*

**Johnsongrass\***

*Sorghum halepense*

**Poorjoe\*\***

*Diodia teres*

**Trumpetcreeper\***

*Campsis radicans*

**Vaseygrass**

*Paspalum urvillei*

**Vervain, blue**

*Verbena hastata*

\*Suppression at higher rates only.

**\*\*Control at the higher rates.**

Use only on well-established bermudagrass. Bermudagrass injury may result from the treatment but regrowth will occur under moist conditions. Repeat applications in the same season are not recommended, since severe injury may result.

Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

---

**COOL SEASON TURF  
GROWTH REGULATION**

---

When applied as directed, this product will suppress growth and seedhead development of listed turf species in industrial sites.

This product is recommended for management of coarse turfs on roadside rights-of-way or other industrial areas. Do not use on high-quality turfs or other areas where some turf color changes cannot be tolerated. Slight turf discoloration may occur but turf will regreen and regrow under moist conditions as effects of this product wear off.

Apply 4 to 6 fluid ounces of this product per acre alone or in a recommended tank mixture. Spray volumes of 10 to 40 gallons per acre are recommended.

When using this product, mix 2 quarts of a nonionic surfactant per 100 gallons of spray solution.

This product can be used for growth and seedhead suppression of:

**Tall Fescue  
Smooth Brome**

For best results, apply this product in a recommended tank mixture to actively growing turfgrasses after greenup in the spring of the year. For suppression of seedheads, applications must be made before boot-to-seedhead stage of development. Applications made from seedhead emergence until maturity may result in turf discoloration or injury.

After mowing or removal of seedheads, this product in a recommended tank mixture may also be used to suppress the growth of certain turfgrasses. Allow turf to recover from stress caused by heat, drought, or mowing before making applications. Applications made to turf under stress may increase the potential for discoloration or injury.

### ANNUAL GRASSES

For growth suppression of some annual grasses such as annual ryegrass, wild barley and wild oats, apply 3 to 4 fluid ounces of this product in 10 to 40 gallons of spray solution per acre. Applications should be made when annual grasses are actively growing and before the seedheads are in the boot stage of development. Treatments made after seedhead emergence may cause injury to the desired grasses.

### TANK MIXTURES

For the following tank mixtures, consult each product label for weeds controlled and the correct stage of application. Do not treat turf under stress.

#### Tank mixtures plus 2,4-D Amine

For additional weed control benefits, up to ~~1 quart~~ 1 pound a.i. per acre of 2,4-D amine may be added to the following tank mixtures. Consult the label for 2,4-D amine for weeds controlled.

### TALL FESCUE

#### MON-35085 plus Telar™

For suppression of tall fescue growth and seedheads, and control or partial control of some annual weeds, apply this tank mixture after greenup and prior to boot-to-seedhead stage of development. Use up to  $\frac{1}{2}$  ounce of Telar per acre.

This tank mixture can also be applied after mowing or removal of tall fescue seedheads for turf growth suppression. Make only one of the above applications per growing season.

#### MON-35085 plus Oust™

For suppression of tall fescue growth and seedheads, and control or partial control of some annual weeds, apply this tank mixture after greenup and prior to boot-to-seedhead stage of development. Use up to  $\frac{1}{4}$  ounce of Oust per acre.

#### MON-35085 plus Escort™

This tank mixture can be applied after mowing or removal of tall fescue seedheads for turf growth suppression and control or partial control of some annual weeds. Use up to  $\frac{1}{3}$  ounce of Escort per acre.



## SMOOTH BROME

### MON-35085 plus Oust

For suppression of smooth brome growth and seedheads and control or partial control of some annual weeds, apply this tank mixture after greenup and prior to boot-to-seedhead stage of development. Use up to 1/4 ounce of Oust per acre.

\*Escort and Telar are trademarks of E. I. du Pont de Nemours and Company.

---

## **BAHIAGRASS SEEDHEAD AND VEGETATIVE SUPPRESSION**

---

When applied as directed in the indicated noncrop areas (roadsides, airports, golf course roughs, and plant sites), this product will provide significant inhibition of seedhead emergence and will suppress vegetative growth for a period of approximately 45 days with single applications and approximately 120 days with sequential applications.

Apply this product 1 to 2 weeks after full greenup of bahiagrass or after the bahiagrass has been mowed to a uniform height of 3 to 4 inches. Applications must be made prior to seedhead emergence. Apply 6 fluid ounces per acre of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 10 to 25 gallons of water per acre.

Sequential applications of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume may be made at approximately 45 day intervals to extend the period of seedhead and vegetative growth suppression. For continued seedhead suppression, sequential applications must be made prior to seedhead emergence. Apply no more than 2 sequential applications per year. As a first sequential application, apply 4 fluid ounces of this product per acre plus nonionic surfactant. A second sequential application of 2 to 4 fluid ounces per acre plus nonionic surfactant may be made approximately 45 days after the last application.

A tank mixture of Roundup ~~this product~~ plus Oust may be applied only on roadsides for seedhead inhibition and vegetative suppression. Apply 6 fluid ounces per acre of this product plus 0.25 ounce per acre of Oust, plus 0.5 to 1 percent nonionic surfactant by total spray volume 1 to 2 weeks following an initial spring mowing. When using Roundup ~~this product~~ plus Oust for suppression of bahiagrass, make only one application per year.

---

## CROPPING SYSTEMS

---

When applied as directed for "Cropping Systems", under the conditions described, this product controls annual and perennial weeds listed on this label, prior to the emergence of direct seeded crops or prior to transplanting of crops listed on this label.

See "General Information" and "Mixing, Additives and Application Instructions" sections of this label for essential product performance information.

See the following "Cropping Systems" sections for specific recommended uses.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF SPRAY WITH FOLIAGE, GREEN STEMS OR FRUIT OF DESIRABLE CROPS, PLANTS, TREES OR OTHER DESIRABLE VEGETATION SINCE SEVERE DAMAGE OR DESTRUCTION MAY RESULT.

Repeat treatments may be necessary to control weeds regenerating from underground parts or seed. Except as otherwise specified on this label, repeat treatments must be made before the crop emerges in accordance with the instructions of this label.

Except as otherwise specified in a crop section of this label, the combined total of all treatments must not exceed 8 quarts per acre of this product per year.

Do not plant subsequent crops other than those on the label for 30 days following application.

~~For other cropping systems, except following spot treatment in forage grasses and legumes, do not harvest or feed treated crops~~ vegetation for 8 weeks after following application. Allow 14 days following Following spot treatment or selective equipment use, allow 14 days before grazing domestic livestock or harvesting forage grasses and legumes.

~~When applied as directed for "Cropping Systems", under the conditions described, this product controls annual and perennial weeds listed on this label, prior to the emergence of direct seeded crops or prior to transplanting of crops listed on this label.~~

---

ALFALFA\*  
ARTICHOKE,  
JERUSALEM  
ASPARAGUS\*  
ATEMOYA  
BARLEY\*  
BEANS (All)  
BEET GREENS

BEETS (Red, Sugar)  
BLACKBERRY  
BLUEBERRY  
BOYSENBERRY  
BREADFRUIT  
BROCCOLI  
CABBAGE  
CANISTEE  
CARAMBOLA  
CARROT  
CAULIFLOWER  
CELERY  
CHICORY  
CORN (All)\*  
COTTON\*  
CRANBERRY  
CUCUMBER\*\*\*  
CURRANT  
DATES  
DEWBERRY  
EGGPLANT\*\*\*  
ELDERBERRY  
FORAGE GRASSES\*  
FORAGE LEGUMES\*  
GARLIC\*\*\*  
GOOSEBERRY  
GOURDS\*\*\*  
HORSERADISH  
HUCKLEBERRY  
JABOTICABA  
JACKFRUIT  
KALE  
LENTILS  
LETTUCE  
LOGANBERRY  
LONGAN  
LYCHEE  
MELONS\*\*\*  
MUSTARD GREENS  
OATS\*  
OKRA  
OLALLIEBERRY  
ONION  
PARSNIPS  
PASSION FRUIT  
PEANUTS  
PEAS (All)  
PEPPER\*\*\*  
PERSIMMONS  
PINEAPPLE\*\*\*\*  
POTATO (Irish, Sweet)  
PUMPKIN\*\*\*  
RADISH  
RASPBERRY (Black, Red)

RICE\*\*  
 RUTABAGA  
 SAPODILLA  
 SAPOTE (Black, Mamey, White)  
 SORGHUM (Milo)\*  
 SOURSOP  
 SOYBEANS\*  
 SPINACH  
 SQUASH\*\*\* (Summer,  
     Winter)  
 SUGAR APPLE  
 TAMARIND  
 TOMATILO\*\*\*  
 TOMATOES\*\*\*†  
 TURNIPS  
 WATERMELON\*\*\*  
 WATERCRESS\*\*\*  
 WHEAT\*  
 YAMS

\* Spot treatments may be applied in these crops.

\*\* Do not treat rice fields or levees when the fields contain flood water.

\*\*\* Apply only prior to planting. Allow at least 3 days between application and planting.

\*\*\*\*Do not feed or graze treated pineapple forage following application.

† Use is restricted to direct seeded crops only.

When ~~transplanting~~ applying this product prior to transplanting crops into plastic mulch, care must be taken to remove residues of this product from the plastic prior to transplanting. Residues can be removed by 1/2 inch natural rainfall or by applying water via a sprinkler irrigation system.

NOTE: This product is not registered in California for use on ~~apemoya, breadfruit, canistel, carambola, jaboticaba, jackfruit, longan, lychee, parsnips, passion fruit, sapodilla, sapote, sugar apples, tamarind, and yams and parsnips.~~

Spot Treatment (Only those crops with '\*' can be spot treated.)—Applications in growing crops must be made prior to heading of small grains and milo, initial pod set in soybeans, silking of corn, or boll opening on cotton.

For forage grasses and forage legumes see "Spot Treatment" in the "Pastures" section of "Cropping Systems" in this label.

For dilution and rates of application using boom or hand-held equipment, see 'Mixing, Additives and Application Instructions' and 'Weeds Controlled' sections of this label.

NOTE: FOR FORAGE GRASSES AND FORAGE LEGUMES, NO MORE THAN ONE-TENTH OF ANY ACRE SHOULD BE TREATED AT ONE TIME. FOR ALL OTHER CROPS, DO NOT TREAT MORE THAN 10 PERCENT OF THE TOTAL FIELD AREA TO BE HARVESTED.

THE CROP RECEIVING SPRAY IN TREATED AREA WILL BE KILLED. TAKE CARE TO AVOID DRIFT OR SPRAY OUTSIDE TARGET AREA FOR THE SAME REASON.

**Selective Equipment**—This product may be applied through recirculating sprayers, shielded applicators, or wiper applicators in cotton and soybeans. Shielded and wiper applicators may also be used in tree crops and grapes. Wiper applicators may be used in rutabagas, forage grasses and forage legumes, including pasture sites and grain sorghum (milo).

See the 'Selective Equipment' part of the 'Application Equipment and Techniques' section of this label for information on proper use and calibration of this equipment.

Allow at least the following time intervals between application and harvest:

|  |         |
|--|---------|
| Cotton, Soybeans .....   | 7 days  |
| Apples, Atemoya, Avocado, Breadfruit, Canistel,<br>Careambola, Cherry, Citrus, Grapes, Dates,<br>Jaboticaba, Jackfruit, Longan, Lychee, Passion<br>Fruit Pear, Persimmons, Rutabagas, Sapodilla,<br>Sapote, Soursop, Sugar Apple, Tamarind ..... | 14 days |
| Stone Fruit .....  | 17 days |
| Nut Crops .....  | 21 days |
| Sorghum (milo)* .....  | 40 days |

\* Do not use roller applicators. Do not feed or graze treated milo fodder. Do not ensile treated vegetation.

---

#### ASPARAGUS

---

When applied as directed for 'Cropping Systems' under the conditions described, this product controls weeds listed on this label in asparagus.

For specific rates of applications and instructions for control of various annual and perennial weeds, see the 'Weeds Controlled' section of this label.

**Prior to Crop Emergence**—Apply this product prior to crop emergence for the control of emerged labeled annual and perennial weeds. DO NOT APPLY WITHIN A WEEK BEFORE THE FIRST SPEARS EMERGE.

**Spot Treatment**—Apply this product immediately after cutting, but prior to the emergence of new spears. Do not treat more than 10 percent of the total field area to be harvested. Do not harvest within 5 days of treatment.

**Postharvest**—Apply this product after the last harvest and all spears have been removed. If spears are allowed to regrow, delay application until ferns have developed. Delayed treatments should be applied as directed or shielded spray in order to avoid contact of the spray with ferns, stems or spears. Direct contact of the spray with the asparagus may result in serious crop injury.

**NOTE:** Select and use recommended types of spray equipment for postemergence postharvest applications. A directed spray is any application where the spray pattern is aligned in such a way as to avoid direct contact of the spray with the crop. A shielded spray is any application where a physical barrier is positioned and maintained between the spray and the crop to prevent contact of spray with the crop.

---

#### BERRIES AND SMALL FRUITS

---

For cranberries, apply after fruit set and no later than 30 days before harvest.

For other berries, apply as a preplant broadcast application, or as a directed spray or wiper application post-planting.

Wiper applicators may be used in cranberries in accordance with instructions in this section.

See "General Information" and "Mixing, Additives and Application Instructions" sections of this label for essential product performance information.

See the "Selective Equipment" part of the "Application Equipment and Techniques" section of this label for information on recommended use and calibration of this equipment.

**For Wick or other Wiper Applicators**—Mix 1 gallon of this product in 4 gallons of water to prepare a 20 percent solution. Apply the solution to emerged weeds. Apply after cranberry fruit set and no later than 30 days before harvest.

In severe infestations, reduce equipment ground speed to ensure that adequate amounts of this product are wiped on the weeds. A second treatment in the opposite direction may be beneficial.

Do not permit herbicide solution to contact desirable vegetation, including green shoots, canes, or foliage.

---

#### FALLOW AND REDUCED

---

## TILLAGE SYSTEMS

FOR AERIAL APPLICATION IN CALIFORNIA; REFER TO SUPPLEMENTAL LABEL.

Use this product in fallow and reduced tillage systems for control of annual weeds prior to emergence of crops listed in this label. Refer to the "Weeds Controlled" section of this label for specific rates and instructions. This product may be applied using ground or aerial spray equipment. See the "Application Equipment and Techniques" section of this label for instructions.

### TANK MIXTURES

MON-35085 plus BANVEL  
plus NONIONIC SURFACTANT

MON-35085 plus 2,4-D AMINE  
plus NONIONIC SURFACTANT

MON-35085 plus GOAL™  
plus NONIONIC SURFACTANT

DO NOT APPLY BANVEL, OR 2,4-D AMINE TANK MIXTURES BY AIR IN CALIFORNIA.

Applications of 2,4-D or Banvel must be made at least 7 days prior to planting corn. Applications of 2,4-D must be made at least 30 days prior to planting soybeans.

The additions of Banvel in a mixture with this product may provide short-term residual control of selected weed species. Some crop injury may occur if Banvel is applied within 45 days of planting. Refer to the Banvel and 2,4-D labels for cropping restrictions and other use instructions.

### MON-35085 plus Goal Tank Mixtures

This product alone or in tank mixtures with Goal plus 0.5 to 1 percent nonionic surfactant by total spray volume will provide control of those weeds listed below.

Make applications when weeds are actively growing and at the recommended stages of growth. Avoid spraying when weeds are subject to moisture stress, when dust is on the foliage or when straw canopy covers the weeds.

### MON-35085 12 fluid oz/acre

|        |      |
|--------|------|
| Wheat  | 18"* |
| Barley | 12"  |





|               |    |
|---------------|----|
| Bluegrass,    |    |
| annual        | 6" |
| Barnyardgrass | 6" |
| Rye           | 6" |

**MON-35085 16 fluid oz/acre**

Annual grasses at  
left plus:

|                  |     |
|------------------|-----|
| Ryegrass,        |     |
| annual           | 6"  |
| Chickweed        | 6"  |
| Groundsel        | 6"  |
| Marestail        | 6"  |
| Rocket, London   | 6"  |
| Shepherdspurse   | 6"  |
| Crabgrass        | 12" |
| Johnsongrass,    |     |
| seedling         | 12" |
| Lambsquarters    | 12" |
| Oats, wild       | 12" |
| Pigweed, redroot | 12" |
| Mustards         | 12" |

**MON-35085 12 fluid oz/acre**

+

**GOAL\*\* 2 to 4 fluid oz/acre**

Annual grasses above  
plus:

|                |    |
|----------------|----|
| Cheeseweed,    |    |
| common         | 3" |
| Chickweed      | 3" |
| Groundsel      | 3" |
| Rocket, London | 6" |
| Shepherdspurse | 6" |

**MON-35085 16 fluid oz/acre**

+

**GOAL\*\* 2 to 4 fluid oz/acre**

Annual weeds above  
plus:

|                |     |
|----------------|-----|
| Cheeseweed,    |     |
| common         | 6"  |
| Groundsel      | 6"  |
| Chickweed      | 12" |
| Rocket, London | 12" |
| Shepherdspurse | 12" |

\* Maximum height or length in inches.

\*\* Use the higher rate when weeds approach maximum recommended height or stands are dense.

These recommended tank mixtures may be applied using ground or aerial spray equipment. Refer to the "Weeds Controlled" section of this label for specific rates and instructions.

\*Goal is a trademark of Rohm and Haas Company.

**ECOFARMING SYSTEMS**

The recommendations made in this section are not registered for use in California.

The Ecofarming System consists of the following rotation: winter wheat, corn/sorghum, ecofallow.

Use the following tank mixtures for control of emerged annual weeds before planting corn or sorghum in the Ecofarming System.

MON-35085 at 16 to 20 fluid ounces per acre  
plus  
2,4-D at 0.375 to 0.5 pound a.i. per acre  
plus  
ATRAZINE at 0.75 to 1 pound a.i. per acre  
plus  
LASSO® at 2.5 to 3 quarts per acre

The above tank mixture should be applied in 28-0-0 or 32-0-0 liquid fertilizer carrier at 20 to 30 gallons per acre. The liquid fertilizer may be diluted with water to achieve the desired carrier volume.

WEEDS CONTROLLED - The following weeds, up to a maximum height of 4 inches, will be controlled:

Brome, downy  
*Bromus tectorum*

Cheat  
*Bromus secalinus*

Foxtail, green  
*Setaria viridis*

Foxtail, yellow  
*Setaria lutescens*

Kochia\*  
*Kochia scoparia*

Lettuce, prickly  
*Lactuca serriola*

Pigweed, redroot  
*Amaranthus retroflexus*

Thistle, Russian  
*Salsola kali*

Wheat, volunteer  
*Triticum aestivum*

\*For improved control of kochia, add 4 fluid ounces per acre (0.125 pound a.i. per acre) of Banvel to the above tank mixture.

Risk of crop injury from 2,4-D or Banvel can be reduced by applying this treatment 7 to 14 days before planting.

Refer to the label booklet for Lasso herbicide for preemergence weed control achieved by this tank mixture.

Refer to the specific product labels for crop rotation restrictions and cautionary statements for all products used in these tank mixtures.

®Lasso is a registered trademark of Monsanto Company.

#### AID TO TILLAGE

This product, when used in conjunction with preplant tillage practices, will provide control of downy brome, cheat, volunteer wheat, tansy mustard and foxtail. Apply 8 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Make applications when weeds are actively growing and before they are 6 inches in height. Application must be followed by conventional tillage practices no later than 15 days after treatment and before regrowth occurs. Allow at least 1 day after application before tillage. Tank mixtures with residual herbicides may result in reduced performance.

---

#### PASTURES

---

Apply this product prior to planting forage grasses and legumes.

**Pasture or Hay Crop Renovation**—When applied as a broadcast spray, this product controls the annual and perennial weeds listed in this label prior to planting forage grasses or legumes. Remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting.

**Spot Treatment**—When applied as a spot treatment as recommended, this product controls annual and perennial weeds listed in this label which are growing in pastures, forage grasses and forage legumes composed of bahiagrass, bermudagrass, bluegrass, brome, fescue, orchardgrass, ryegrass, timothy, wheatgrass, alfalfa or clover.

**Wiper Application**—When applied as directed, this product controls or suppresses the weeds listed under "Wiper Applicators" in the "Selective Equipment" section of this label.

For spot treatment and wiper application, apply in areas where the movement of domestic livestock can be controlled. No more than one-tenth of any acre should be treated at one time. Further applications may be made in the same area at 30 day

intervals. Remove domestic livestock before application and wait 14 days after application before grazing livestock or harvesting.

---

### SUGARCANE

---

When applied as directed for "Cropping Systems", under the conditions described, this product controls those emerged annual and perennial weeds listed on this label growing in or around sugarcane or in fields to be planted to sugarcane. This product will also control undesirable sugarcane.

NOTE: Where repeat treatments are necessary, do not exceed a total of 10.6 quarts of this product per acre per year. Do not apply to vegetation in or around ditches, canals or ponds containing water to be used for irrigation.

**Broadcast Treatment**—Apply this product in 10 to 40 gallons of water per acre on emerged weeds growing in fields to be planted to sugarcane.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "Weeds Controlled" section of this label.

For removal of last stubble or ratoon cane, apply 4 to 5 quarts of this product in 10 to 40 gallons of water per acre to new growth having at least 7 or more new leaves. Allow 7 or more days after application before tillage.

**Spot Treatment in or Around Sugarcane Fields**—For dilution and rates of application using hand-held equipment, see "Mixing, Additives and Application Instructions" and "Weeds Controlled" sections of this label.

For control of volunteer or diseased sugarcane, make a 1 percent solution of this product in water and spray to wet the foliage of vegetation to be controlled.

NOTE: When spraying volunteer or diseased sugarcane, the plants should have at least 7 new leaves.

Avoid spray contact with healthy cane plants since severe damage or destruction may result.

Do not feed or graze treated sugarcane forage following application.

---

### MINIMUM TILLAGE SYSTEMS

---

#### Tank Mixtures

#### CORN AND SOYBEANS

---

~~When applied as recommended under the conditions described, these tank mixtures control many emerged weeds, and give preemergence control of many annual weeds when corn or soybeans will be planted directly into a cover crop, established sod, or in previous crop residues.~~

~~Refer to specific product labels for crop rotation restrictions and cautionary statements of all products used in these tank mixtures. For mixing instructions, see the "Mixing, Additives and Application Instructions" section of this label.~~

#### ~~CORN~~

- ~~• ROUNDUP® plus LASSO®~~
- ~~• ROUNDUP plus LASSO plus ATRAZINE~~
- ~~• ROUNDUP plus LASSO plus BLADEX™~~
- ~~• ROUNDUP plus LASSO plus SIMAZINE~~
- ~~• ROUNDUP plus ATRAZINE plus SIMAZINE~~

#### ~~SOYBEANS~~

- ~~• ROUNDUP® plus LASSO®~~
- ~~• ROUNDUP plus LASSO plus LOROX/LINURON~~
- ~~• ROUNDUP plus LASSO plus LEXONE™~~
- ~~• ROUNDUP plus LASSO plus SENCOR™~~

~~Apply these tank mixtures in 10 to 40 gallons of water per acre after planting or during planting in such manner that the planter does not disturb the treated soil. Do not apply these mixtures after crop emergence.~~

~~REDUCED CONTROL MAY RESULT IF THIS PRODUCT IS USED IN TANK MIXTURES CONTAINING FLUID FERTILIZERS.~~

#### ~~CONTROL OF EMERGED WEEDS~~

~~Annual Weeds Apply to actively growing grasses and broadleaf weeds. Use 1 quart of this product per acre in these tank mixtures if weeds are less than 6 inches tall. If weeds are over 6 inches tall, apply 1.5 quarts of this product per acre. For emerged annual weeds controlled, see the "Weeds Controlled" section of this label.~~

~~Perennial Weeds At normal application rates in minimum tillage systems, perennial weeds may not be at the proper stage of growth~~

~~for control. See the "General Information" section of this label for the proper stage of growth for perennial weeds.~~

~~Use of 2 to 4 quarts of this product per acre in these tank mixtures, under these conditions provides top kill and reduces competition from many emerged perennial grass and broadleaf weeds. For emerged perennial weeds controlled, see the "Weeds Controlled" section of this label.~~

~~To obtain the desired stage of growth, it may be necessary to apply this product alone in the late summer or fall and then follow with a label approved, seedling weed control program at planting.~~

~~NOTE: When using these tank mixtures, do not exceed 4 quarts of this product per acre.~~

~~USE OF THESE TANK MIXTURES FOR BERMUDAGRASS OR JOHNSONGRASS CONTROL IN MINIMUM TILLAGE SYSTEMS IS NOT RECOMMENDED. For bermudagrass control, follow the instructions under "Control of Perennial Weeds" section of this label and then use a label approved, seedling weed control program in a minimum tillage or conventional tillage system. For Johnsongrass control, follow the instructions under "Control of Perennial Weeds" section of this label, and then use a label approved seedling weed control program with conventional tillage.~~

~~The following are labeled ranges for the recommended preemergence herbicides:~~

| RATES/ACRE                |              |              |
|---------------------------|--------------|--------------|
| PRODUCT                   | (QUARTS)     | (POUNDS)     |
| Lasso                     | 2 to 4       | •            |
| Atrazine 4L               | 1 to 2       | •            |
| Atrazine 80WP             | •            | 1.25 to 2.3  |
| Atrazine 90DF             | •            | 1.1 to 2     |
| Bladex 4L                 | 1 to 2.2     | •            |
| Bladex 90DF               | •            | 0.7 to 3.3   |
| Simazine 4L               | 1 to 2.2     | •            |
| Simazine 80WP             | •            | 1.25 to 2.75 |
| Linuron 4L                | 0.5 to 1.5   | •            |
| Lorox DF                  | •            | 0.75 to 3    |
| Lexone 4L or<br>Sencor 4F | 0.25 to 0.75 | •            |
| Lexone or<br>Sencor 75DF  | •            | 0.33 to 1    |

~~Read and carefully observe the label claims, cautionary statements, rates and all other information on the labels of all products. Use~~

~~according to the most restrictive label directions for each product in the mixture.~~

~~®Lasso is a registered trademark of Monsanto Company.~~

~~™Bladex and ™Lexone are trademarks of E. I. du Pont de Nemours and Company.~~

~~™Sencor is a trademark of the parent company of Farbenfabriken Bayer GmbH, Leverkusen.~~

---

#### **PREHARVEST APPLICATIONS**

---

~~When applied as directed under the conditions described, this product controls annual and perennial weeds listed on this label prior to the harvest of COTTON.~~

~~Weed Control For specific rates of application and instructions for control of various annual and perennial weeds, see the "Weeds Controlled" section of this label.~~

~~Broadcast Applications This product may be applied using either aerial or ground spray equipment. For ground applications with broadcast equipment, apply this product in 10 to 40 gallons of water per acre. For aerial applications, apply this product in 3 to 15 gallons of water per acre.~~

~~To control Johnsongrass using multiple nozzle directed spray equipment, apply 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 10 to 20 gallons of water per acre. Ensure complete coverage.~~

~~For partial control of field bindweed, apply one quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 40 gallons of water per acre. Apply when bindweed is actively growing and 12 inches or greater in length. Reduced performance may result if bindweed is under drought stress.~~

#### **Tank Mixtures**

~~Roundup® plus Def™ 6~~

~~Roundup plus Folex™~~

~~When applied as recommended under the conditions described, these tank mixtures control annual and perennial weeds listed on this label prior to the harvest of cotton. For application guidelines, precautions and defoliant rates, refer to the supplemental label for cotton harvest aid.~~

~~Timing of Application Apply this product or these tank mixtures for preharvest weed control after 60 percent of the cotton bolls have opened.~~

~~NOTE: DO NOT APPLY TO CROPS GROWN FOR SEED. Allow a minimum of 7 days between application and harvest.~~

~~Do not feed or graze treated cottonseed forage or hay following preharvest applications.~~

~~"Def is a trademark of Mobay Chemical Corporation.~~

~~"Folex is a trademark of Rhone-Poulenc, Inc.~~

---

CONSERVATION TILLAGE, MINIMUM TILLAGE AND NO-TILL SYSTEMS  
CORN AND SOYBEANS  
Tank Mixtures

---

The recommendations made in this section are not registered for use in California.

When applied as recommended under the conditions described, the tank mixtures listed in this section control many emerged weeds, and give preemergence control of many annual weeds where corn or soybeans will be planted directly into a cover crop, established sod, or in previous crop residues.

Refer to specific product labels for crop rotation restrictions and cautionary statements of all products used in these tank mixtures. For mixing instructions, see the "Mixing, Additives and Application Instructions" section of this label.

Apply these tank mixtures in 10 to 20 gallons of water or 10 to 60 gallons of nitrogen solution per acre before, during or after planting. Do not apply these mixtures after crop emergence.

When tank mixing with residual herbicides, add an agriculturally approved nonionic surfactant at 0.5 to 1 percent by volume of spray solution. The addition of 1 to 2 percent dry ammonium sulfate by weight may increase the performance of this product.

NOTE: When using these tank mixtures, do not exceed 4 quarts of this product per acre.

CORN

For residual control, this product may be tank-mixed with the following herbicides or combination of herbicides:

|                 |                   |
|-----------------|-------------------|
| LASSO®/ALACHLOR | ATRAZINE          |
| LARIAT®         | BLADEX™/CYANAZINE |
| BULLET®         | SIMAZINE          |
| DUAL™           | PROWL™            |
| BICEP™          |                   |



For improved burndown, this product may be tank-mixed with 2,4-D or dicamba. Applications of 2,4-D or dicamba must be made at least 7 days prior to planting corn. See the "Weeds Controlled" section for specific rate information.

#### SOYBEANS

For residual control, this product may be tank-mixed with the following herbicides or combination of herbicides:

|                 |             |
|-----------------|-------------|
| CANOPY™         | LOROX™ PLUS |
| COMMAND™        | PREVIEW™    |
| DUAL™           | PROWL™      |
| GEMINI™         | TURBO™      |
| LASSO®/ALACHLOR | SCEPTER™    |
| LEXONE™         | SENCOR™     |
| LINURON         | SQUADRON™   |

For improved burndown, this product may be tank-mixed with the following herbicides:

|        |
|--------|
| 2,4-DB |
| 2,4-D* |

\* Applications of 2,4-D must be made at least 30 days prior to planting soybeans. See the "Weeds Controlled" section for specific rate information.

#### CORN AND SOYBEANS

**Annual Weeds**--For difficult-to-control weeds such as fall panicum, barnyardgrass, crabgrass, shattercane and broadleaf signalgrass up to 2 inches tall, and Pennsylvania smartweed up to 6 inches tall, apply this product at 2 pints per acre in these tank mixtures. For other labeled annual weeds, apply 1 to 1.5 pints of this product per acre when weeds are less than 6 inches tall, and 2 to 3 pints when weeds are over 6 inches tall. For a complete list of annual weeds controlled, see the "Weeds Controlled" section of this label.

**Perennial Weeds**--At normal application times in minimum tillage systems, perennial weeds may not be at the proper stage of growth for control. See the "Weeds Controlled" section of this label for the proper stage of growth for perennial weeds.

Use of 2 to 4 quarts of this product per acre in the tank mixtures mentioned above, under these conditions provides top kill and reduces competition from many emerged perennial grass and broadleaf weeds. For emerged perennial weeds controlled, see the "Weeds Controlled" section of this label.

To obtain the desired stage of growth, it may be necessary to apply this product alone in the late summer or fall and then follow with a label-approved, seedling weed control program at planting.

USE OF THESE TANK MIXTURES FOR BERMUDAGRASS OR JOHNSONGRASS CONTROL IN MINIMUM TILLAGE SYSTEMS IS NOT RECOMMENDED. For bermudagrass control, follow the instructions under "Control of Perennial Weeds" section of this label and then use a label-approved, seedling weed-control program in a minimum tillage or conventional tillage system. For johnsongrass control, follow instructions under "Control of Perennial Weeds" section of this label, and then use a label-approved seedling weed-control program with conventional tillage.

®Bullet, Lasso, and Lariat are registered trademarks of Monsanto Company.

"Canopy, Bladex, Gemini, Lexone, Lorox Plus and Preview are trademarks of E.I. duPont de Nemours and Company.

"Dual is a trademark of Ciba-Geigy Corporation.

"Sencor and Turbo are trademarks of Bayer AG.

"Prowl, Scepter and Squadron are trademarks of American Cyanamid Company.

"Command is a trademark of FMC Corporation.

---

## PREHARVEST APPLICATIONS

---

### COTTON

When applied as directed under the conditions described, this product controls annual and perennial weeds listed on this label prior to the harvest of cotton.

**Broadcast Applications**--This product may be applied using either aerial or ground spray equipment. For ground applications with broadcast equipment, apply this product in 10 to 20 gallons of water per acre. For aerial applications, apply this product in 3 to 10 gallons of water per acre.

**FOR AERIAL APPLICATIONS, REFER TO THE "APPLICATION EQUIPMENT AND TECHNIQUES" AND "AERIAL EQUIPMENT" SECTIONS OF THIS LABEL.**

**FOR AERIAL APPLICATIONS IN CALIFORNIA, REFER TO THE FEDERAL SUPPLEMENTAL LABEL FOR AERIAL APPLICATIONS IN THAT STATE FOR SPECIFIC INSTRUCTIONS, RESTRICTIONS AND REQUIREMENTS.**

**DO NOT EXCEED A MAXIMUM RATE OF 1 QUART PER ACRE OF THIS PRODUCT WHEN MAKING APPLICATIONS BY AIR.**

**Weed Control**--For specific rates of application and instructions for control of various annual and perennial weeds for this product used alone or in the following tank mixtures, see the "Weeds Controlled" section of this label.

To control johnsongrass using multiple-directed or broadcast over-the-top spray equipment, apply 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 10 to 20 gallons of water per acre. Ensure complete coverage.

For partial control of field bindweed, apply 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 20 gallons of water per acre. Apply when bindweed is actively growing and 12 inches or greater in length. Reduced performance may result if bindweed is under drought stress.

#### TANK MIXTURES

MON-35085 plus Def<sup>™</sup> 6

MON-35085 plus Folex<sup>™</sup>

MON-35085 plus Prep<sup>™</sup>

MON-35085 plus Prep plus Def 6 or Folex

When applied as recommended under the conditions described, these tank mixtures control annual and perennial weeds listed on this label prior to the harvest of cotton. For application guidelines, precautions and use-rates, refer to the Def, Folex and Prep labels.

This product when tank mixed with DEF 6 or Folex defoliants may provide enhancement of cotton leaf drop and regrowth inhibition.

**Timing of Application**--Apply this product or these tank mixtures for preharvest weed control after 60 percent of the cotton bolls have opened.

**NOTE:** DO NOT APPLY TO CROPS GROWN FOR SEED. Allow a minimum of 7 days between application and harvest. Do not feed or graze treated cotton forage or hay following preharvest applications.

<sup>™</sup>Def is a trademark of Mobay Chemical Company.

<sup>™</sup>Folex and Prep are trademarks of Rhone-Poulenc, Inc.

---

#### TREE AND VINE CROPS

---

This product is recommended for weed control in established groves, vineyards, or orchards, or for site preparation prior to transplanting crops listed in this section. Applications may be made with boom equipment, CDA, shielded sprayers, hand-held and high volume wands, lances, or orchard guns, or with wiper applicator equipment, except as directed in this section. See the "Application Equipment and Techniques" section of this label for specific information on use of equipment.

When applying this product, refer to the "Weeds Controlled" section of this label for recommended rates to be used.

#### NOTE

Repeat treatments may be necessary to control weeds originating from underground parts of untreated weeds or from seeds. This product does not provide residual weed control. For subsequent weed control, follow a program using residual herbicides or use repeated applications of this product. Do not apply more than 10.6 quarts of this product per acre per year.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF HERBICIDE SOLUTION, SPRAY, DRIFT, OR MIST WITH FOLIAGE OR GREEN BARK OF TRUNK, BRANCHES, SUCKERS, FRUIT, OR OTHER PARTS OF TREES OR VINES. CONTACT OF THIS PRODUCT WITH OTHER THAN MATURED BROWN BARK CAN RESULT IN SERIOUS CROP DAMAGE.

AVOID PAINTING OUT STUMPS WITH THIS PRODUCT AS INJURY RESULTING FROM ROOT GRAFTING MAY OCCUR IN ADJACENT TREES.

Reduced control may result when applications are made to annual or perennial weeds that have been mowed, grazed or cut and have not been allowed to regrow to the recommended stage for treatment.

For specific rates of applications and instructions, see the "Weeds Controlled" section of this label.

---

#### TANK MIXTURES TREE AND VINE CROPS

---

When applied as a tank mixture, this product provides control of the emerged annual weeds and partial control of the emerged perennial weeds listed in this label. The following residual herbicides will provide preemergence control of those weeds listed in the individual product labels.

---

ROUNDUP® plus GOAL™ 1.6E

---

---

ROUNDUP plus KARMEX™ DF

---

---

ROUNDUP plus KROVAR™ I

---

---

ROUNDUP plus KROVAR™ II

---

---

ROUNDUP plus SIMAZINE,  
PRINCEP CALIBER™ 90

---

---

ROUNDUP plus SIMAZINE 4L

---

---

ROUNDUP plus SIMAZINE 80W

---

---

ROUNDUP plus SOLICAM™ 80DF

---

---

ROUNDUP plus SURFLAN™ AS

---

- ~~ROUNDUP plus SURFLAN 75W~~ •
- ~~ROUNDUP plus SIMAZINE~~ •  
~~(80W, or 4L, or PRINCEP CALIBER 90)~~  
~~plus SURFLAN (AS or 75W)~~
- ~~ROUNDUP plus GOAL (1.6E)~~ •  
~~plus SURFLAN (AS or 75W)~~
- ~~ROUNDUP plus GOAL (1.6E)~~ •  
~~plus SIMAZINE~~  
~~(80W, or 4L, or PRINCEP CALIBER 90)\*~~
- ~~ROUNDUP plus GOAL (1.6E)~~ •  
~~plus SURFLAN (AS or 75W)~~  
~~plus simazine (80W, 4L,~~  
~~or PRINCEP Caliber 90)~~

~~\*See the Roundup plus Goal plus simazine tank mixture section below for specific use instructions.~~

~~When tank mixing with residual herbicides, add an agriculturally approved nonionic surfactant.~~

~~Do not apply these tank mixtures in Puerto Rico.~~

#### ~~CONTROL OF EMERGED WEEDS~~

~~Annual Weeds Apply 1 quart per acre of this product in these tank mixtures, when weeds are less than 12 inches tall. For weeds greater than 12 inches tall, apply 1.5 quarts per acre.~~

~~Perennial Weeds For partial control of perennial weeds using these tank mixtures, apply 2 to 5 quarts per acre of this product. Follow the recommendations in the "Weeds Controlled" section of this label for stage of growth and rate of application for specific perennial weeds.~~

#### ~~PREEMERGENCE WEED CONTROL~~

~~The following are the labeled rates for the recommended residual herbicides:~~

| <del>PRODUCT</del>                      | <del>RATE/ACRE</del>        |
|---|-----------------------------|
| <del>Goal 1.6E</del>                    | <del>1.25 to 5 qts.</del>   |
| <del>Karmex DF</del>                    | <del>2 to 8 lbs.</del>      |
| <del>Krovar I</del>                     | <del>2 to 8 lbs.</del>      |
| <del>Krovar II</del>                    | <del>2 to 8 lbs.</del>      |
| <del>Simazine, Princep Caliber 90</del> | <del>1.1 to 10.6 lbs.</del> |
| <del>Simazine, 80W</del>                | <del>1 1/4 to 12 lbs.</del> |
| <del>Simazine 4L</del>                  | <del>2 to 9.6 qts.</del>    |
| <del>Solicam 80DF</del>                 | <del>2 1/4 to 5 lbs.</del>  |

Surflan AS ~~2 to 4 qts.~~  
 Surflan 75W ~~2 2/3 to 5 1/3 lbs.~~

~~NOTE: These residual herbicides may provide post-emergence activity on certain annual weed species.~~

~~Refer to the individual product labels for specific crops, rates, geographical restrictions and precautionary statements.~~

~~Read and carefully observe the label claims, cautionary statements, rates and all other information on the labels of all products.~~

~~For specific rates of application and instructions see the "Weeds Controlled" section of this label.~~

~~■ **ROUNDUP® plus GOAL** ■~~

~~Roundup alone and Roundup plus Goal tank mixtures will control or suppress annual weeds listed below.~~

~~Apply the recommended rates of Roundup or Roundup plus Goal tank mixtures plus 0.5 to 1 percent nonionic surfactant by spray volume in 3 to 10 gallons of water per acre. Apply when weeds are actively growing and less than 6 inches in height. If weeds are under drought stress, irrigate prior to application.~~

**RECOMMENDED RATES AND WEEDS CONTROLLED**

|                           | C — Control  |    |    | S — Suppression |   |       |
|---------------------------|--------------|----|----|-----------------|---|-------|
|                           | Roundup rate |    |    | Roundup+Goal    |   |       |
| WEEDS                     | (fl oz/acre) |    |    | (fl oz/acre)    |   |       |
| SPECIES                   | 8            | 12 | 16 | 12              | 4 | to 16 |
| Bluegrass, annual         | C            | C  | C  | C               |   |       |
| Barley                    | C            | C  | C  | C               |   |       |
| Cheeseweed, common (3")   | S            | S  | S  | C               |   |       |
| Rocket, London            | S            | S  | C  | C               |   |       |
| Shepherdspurse            | S            | S  | C  | C               |   |       |
| Chickweed                 | S            | C  | C  | C               |   |       |
| Fleabane, flaxleaf        | S            | C  | C  | C               |   |       |
| Red Maids                 | S            | C  | C  | C               |   |       |
|                           |              |    |    | 16 + 4 to 16    |   |       |
| Barnyardgrass             | S            | C  | C  | C               |   |       |
| Cheeseweed, common (3-6") | S            | S  | S  | C               |   |       |
| Crabgrass                 | S            | S  | C  | C               |   |       |
| Groundsel, common         | S            | S  | C  | C               |   |       |

216-

|               |   |   |   |   |
|---------------|---|---|---|---|
| Junglerice    | S | S | C | C |
| Lambsquarters | S | S | C | C |
| Marestail     | S | S | C | C |
| Pigweed,      | S | S | C | C |
| redroot       |   |   |   |   |
| Ryegrass,     | S | S | C | C |
| common        |   |   |   |   |
| Sowthistle,   | S | S | C | C |
| annual        |   |   |   |   |
| Purslane,     | S | S | C | C |
| common        |   |   |   |   |
| Nettle,       | S | S | C | C |
| stinging      |   |   |   |   |
| Filaree       | S | S | S | S |

### ~~ROUNDUP® plus GOAL plus SIMAZINE~~

~~(California only)~~

~~Roundup may be tank mixed with Goal plus simazine for broad-spectrum postemergence and preemergence control. Refer to the following table for approved crops and rate ranges for each product in this tank mix. Refer to the individual product labels for weeds controlled, geographical restrictions, precautionary statements and specific use rates.~~

#### ~~RATE RANGES\*~~

| <del>CROP</del>   | <del>GOAL</del>     |                 | <del>SIMAZINE</del>  |                        |
|-------------------|---------------------|-----------------|----------------------|------------------------|
|                   | <del>ROUNDUP®</del> | <del>1.6E</del> | <del>80W**</del>     |                        |
|                   | <del>(quarts)</del> |                 | <del>(quarts)</del>  | <del>(pounds)</del>    |
| <del>Grapes</del> | <del>1 to 1.5</del> |                 | <del>1.25 to 5</del> | <del>2.5 to 5</del>    |
| <del>Almond</del> | <del>1 to 1.5</del> |                 | <del>1.25 to 5</del> | <del>1.25 to 2.5</del> |

~~Use equivalent rate of Princep Caliber 90 or simazine 4L.~~

~~\*Rate dependent on weeds present.~~

~~\*\*Rate dependent on soil type and weeds present.~~

### ~~ROUNDUP® plus GOAL plus SIMAZINE/SURFLAN~~

~~This product plus Goal, applied alone or as a three way or four-way with simazine and/or Surflan, will provide postemergence control of those weeds listed below when applied as recommended.~~

~~Refer to individual product labels for preemergence rates, weeds controlled, precautionary statements and other important information.~~

Apply these tank mixtures in 3 to 40 gallons of water. Add 0.5 to 1 percent nonionic surfactant by total spray volume to the spray solution.

#### WEEDS CONTROLLED

| Weed Species           | Maximum Height<br>(inches) | Roundup® | Goal<br>(quarts/acre) |
|------------------------|----------------------------|----------|-----------------------|
| Barley,<br>—wild       | 4                          | 0.5 to 1 | 0.5 to 5              |
| Bluegrass,<br>—annual  | 4                          | 0.5 to 1 | 0.5 to 5              |
| Cheeseweed,<br>—common | 4                          | 0.5 to 1 | 0.5 to 5              |
| Chickweed,<br>—common  | 4                          | 0.5 to 1 | 0.5 to 5              |
| Flaxleaf,<br>—fleabane | 4                          | 0.5 to 1 | 0.5 to 5              |
| Groundsel,<br>—common  | 4                          | 0.5 to 1 | 0.5 to 5              |
| Marestail              | 4                          | 0.5 to 1 | 0.5 to 5              |
| Pineappleweed          | 4                          | 0.5 to 1 | 0.5 to 5              |
| Rocket, London         | 4                          | 0.5 to 1 | 0.5 to 5              |
| Shepherdspurse         | 4                          | 0.5 to 1 | 0.5 to 5              |
| Sowthistle,<br>—annual | 4                          | 0.5 to 1 | 0.5 to 5              |
| Cheeseweed,<br>—common | 12                         | 1 to 1.5 | 1 to 5                |
| Nettle,<br>—stinging   | 12                         | 1 to 1.5 | 1 to 5                |
| Filaree                | 12                         | 1 to 1.5 | 1 to 5                |

®Solicam is a trademark of Sandoz, Inc.

#### TREE AND VINE CROPS

This product is recommended for weed control in established groves, vineyards, or orchards, or for site preparation prior to transplanting crops listed in this section. Applications may be made with boom equipment, CDA, shielded sprayers, hand-held and high-volume wands, lances, or orchard guns, or with wiper applicator equipment, except as directed in this section. See the "Application Equipment and Techniques" section of this label for specific information on use of equipment.

When applying this product, refer to the "Weeds Controlled" section of this label and to specific recommendations in this section for rates to be used.



#### NOTE

Repeat treatments may be necessary to control weeds originating from underground parts of untreated weeds or from seeds. This product does not provide residual weed control. For subsequent weed control, use repeated applications of this product. Do not apply more than 10.6 quarts of this product per acre per year.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF HERBICIDE SOLUTION, SPRAY, DRIFT, OR MIST WITH FOLIAGE OR GREEN BARK OF TRUNK, BRANCHES, SUCKERS, FRUIT, OR OTHER PARTS OF TREES OR VINES. CONTACT OF THIS PRODUCT WITH OTHER THAN MATURED BROWN BARK CAN RESULT IN SERIOUS CROP DAMAGE.

AVOID PAINTING OUT STUMPS WITH THIS PRODUCT AS INJURY RESULTING FROM ROOT GRAFTING MAY OCCUR IN ADJACENT TREES.

Reduced control may result when applications are made to annual or perennial weeds that have been mowed, grazed or cut and have not been allowed to regrow to the recommended stage for treatment.

For specific rates of applications and instructions, see the "Weeds Controlled" section of this label, and to specific recommendations which follow.

#### MIDDLES MANAGEMENT

##### FOR ANNUAL WEEDS IN MIDDLES BETWEEN ROWS OF TREE AND VINE CROPS

For citrus crops treat uniformly between trees.

- MON-35085
- MON-35085 plus GOAL

This product alone or in mixtures with Goal will control or suppress the annual weeds listed below.

Apply the recommended rates of this product, either alone or in mixtures with Goal, plus 0.5 to 1 percent nonionic surfactant by spray volume in 3 to 10 gallons of water per acre. Apply when weeds are actively growing and less than 6 inches in height or diameter. If weeds are under drought stress, irrigate prior to application. Reduced control may occur if weeds have been mowed prior to application. Up to 48 fluid ounces per acre of this product may be used to control weeds which have been mowed, are stressed, or are growing in dense populations.

---

#### MAXIMUM

#### RATE PER ACRE

| WEED SPECIES | HEIGHT/DIAMETER<br>(INCHES) | MON-35085<br>(FLUID OUNCES) | GOAL<br>(FLUID OUNCES) |
|--------------|-----------------------------|-----------------------------|------------------------|
|--------------|-----------------------------|-----------------------------|------------------------|

|                        |   |   |    |
|------------------------|---|---|----|
| Barley                 | 6 | 8 | -- |
| <i>Hordeum vulgare</i> |   |   |    |
| Bluegrass, annual      |   |   |    |
| <i>Poa annua</i>       |   |   |    |

|                               |   |    |    |
|-------------------------------|---|----|----|
| Barnyardgrass                 | 6 | 12 | -- |
| <i>Echinochloa crus-galli</i> |   |    |    |
| Chickweed, common             |   |    |    |
| <i>Stellaria media</i>        |   |    |    |
| Red Maids                     |   |    |    |
| <i>Calandrinia ciliata</i>    |   |    |    |

|                                |   |          |             |
|--------------------------------|---|----------|-------------|
| Crabgrass                      | 6 | 16       | --          |
| <i>Digitaria spp.</i>          |   |          |             |
| Fleabane, flaxleaf             |   |          | OR          |
| <i>Conyza bonariensis</i>      |   |          |             |
| Groundsel, common              |   |          |             |
| <i>Senecio vulgaris</i>        |   |          |             |
|                                |   | 16 to 32 | + 4 to 16** |
| Junglerice                     |   |          |             |
| <i>Echinochloa colonum</i>     |   |          |             |
| Lambsquarters, common          |   |          |             |
| <i>Chenopodium album</i>       |   |          |             |
| Pigweed, redroot               |   |          |             |
| <i>Amaranthus retroflexus</i>  |   |          |             |
| Rocket, London                 |   |          |             |
| <i>Sisymbrium irio</i>         |   |          |             |
| Ryegrass, common               |   |          |             |
| <i>Lolium multiflorum</i>      |   |          |             |
| Shepherdspurse                 |   |          |             |
| <i>Capsella bursa-pastoris</i> |   |          |             |
| Sowthistle, annual             |   |          |             |
| <i>Sonchus oleraceus</i>       |   |          |             |

|                    |   |          |           |
|--------------------|---|----------|-----------|
| Cheeseweed, common | 3 | 12 to 32 | + 4 to 16 |
| <i>Malva spp.</i>  |   |          |           |

|                           |   |          |           |
|---------------------------|---|----------|-----------|
| Cheeseweed, common        | 6 | 16 to 32 | + 4 to 16 |
| <i>Malva spp.</i>         |   |          |           |
| Filaree*                  |   |          |           |
| <i>Erodium spp.</i>       |   |          |           |
| Horseweed/Marestail       |   |          |           |
| <i>Conyza canadensis</i>  |   |          |           |
| Nettle, stinging          |   |          |           |
| <i>Urtica dioica</i>      |   |          |           |
| Purselane, common*        |   |          |           |
| <i>Purtulaca oleracea</i> |   |          |           |

\* Suppression only.

\*\*The mixture of this product plus Goal is recommended when weeds are stressed or growing in dense populations.

## STRIPS

### FOR ANNUAL AND PERENNIAL WEEDS IN STRIPS OF TREE AND VINE CROPS

#### TANK MIXTURES WITH RESIDUAL HERBICIDES

When applied as a tank mixture, this product provides control of the emerged annual weeds and control or suppression of emerged perennial weeds listed in this label. The following residual herbicides will provide preemergence control of those weeds listed in the individual product labels.

- MON-35085 plus GOAL<sup>®</sup> 1.6E ■
- MON-35085 plus KARMEX<sup>®</sup> DF ■
- MON-35085 plus KROVAR<sup>®</sup> I ■
- MON-35085 plus KROVAR<sup>®</sup> II ■
- MON-35085 plus SIMAZINE,  
PRINCEP CALIBER<sup>®</sup> 90 ■
- MON-35085 plus SIMAZINE 4L ■
- MON-35085 plus SIMAZINE 80W ■
- MON-35085 plus SOLICAM<sup>®</sup> 80DF ■
- MON-35085 plus SURPLAN<sup>®</sup> AS ■
- MON-35085 plus SURPLAN 75W ■
- MON-35085 plus SIMAZINE  
(80W, or 4L, or PRINCEP CALIBER 90)  
plus SURPLAN (AS or 75W) ■
- MON-35085 plus GOAL (1.6E)  
plus SURPLAN (AS or 75W) ■
- MON-35085 plus GOAL (1.6E)  
plus SIMAZINE  
(80W, or 4L, or PRINCEP CALIBER 90) ■
- MON-35085 plus GOAL (1.6E)  
plus SURPLAN (AS or 75W)  
plus SIMAZINE (80W, 4L,  
or PRINCEP CALIBER 90) ■

Do not apply these tank mixtures in Puerto Rico.

When tank-mixing with residual herbicides, add an agriculturally approved nonionic surfactant at 0.5 to 1 percent by volume of spray solution.

Refer to the individual product labels for specific crops, rates, geographical restrictions and precautionary statements.

Read and carefully observe the label claims, cautionary statements, rates and all other information on the labels of all products.

\*Karmex is a trademark of E.I. duPont de Nemours and Company.

#### RECOMMENDED RATES

Annual Weeds - Apply 1 to 5 quarts per acre of this product in these tank mixtures. Use rates at the higher end of the recommended range when weeds are stressed, growing in dense populations or are greater than 12 inches tall.

Perennial Weeds - Apply 1 pint to 5 quarts per acre of this product in these tank mixtures to control or suppress perennial weeds. Follow the recommendations in the "Weeds Controlled" section of this label for stage of growth and application rates for specific perennial weeds.

#### ■ MON-35085 plus GOAL plus SIMAZINE/SURFLAN ■

This product plus low rates of Goal in three-way or four-way mixtures with simazine and/or Surflan will provide postemergence control of the weeds listed below.

Refer to the individual simazine and Surflan labels for preemergence rates, weeds controlled, precautionary statements and other important information.

Apply these tank mixtures in 3 to 40 gallons of water. Add 0.5 to 1 percent nonionic surfactant by total spray volume to the spray solution.

Apply 1 to 5 quarts per acre of this product plus 1 to 48 fluid ounces per acre of Goal plus labeled rates of simazine and/or Surflan to control the following weeds:

Barley, wild

*Hordeum leporinum*

Bluegrass, annual

*Poa annua*

Cheeseweed, common

*Malva spp.*

Chickweed, common

*Stellaria media*

Filaree\*

*Erodium spp.*

Fleabane, flaxleaf  
*Conyza bonariensis*  
 Groundsel, common  
*Senecio vulgaris*  
 Horseweed/Marestail  
*Conyza canadensis*  
 Nettle, stinging  
*Urtica dioica*  
 Pineappleweed  
*Matricaria matricarioides*  
 Rocket, London  
*Sisymbrium irio*  
 Shepherdspurse  
*Capsella bursa-pastoris*  
 Sowthistle, annual  
*Sonchus oleraceus*

\*Use a minimum of 1.5 quarts of this product in these mixtures.

NOTE: This recommendation does not preclude the use of Goal in these mixtures at higher, labeled rates for preemergence weed control.

#### ■ PERENNIAL GRASS SUPPRESSION ■ ORCHARD FLOORS

When applied as directed, this product will suppress vegetative growth as indicated below.

##### Bahiaagrass

This product will provide significant inhibition of seedhead emergence and will suppress vegetative growth for a period of approximately 45 days with a single application and approximately 120 days with sequential applications. Apply this product 1 to 2 weeks after full green-up or after mowing to a uniform height of 3 to 4 inches. Applications must be made prior to seedhead emergence. Apply 6 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 10 to 25 gallons of water per acre.

Sequential applications of this product plus nonionic surfactant may be made at approximately 45-day intervals to extend the period of seedhead and vegetative growth suppression. For continued seedhead suppression, sequential applications must be made prior to seedhead emergence. Apply no more than 2 sequential applications per year. As a first sequential application, apply 4 fluid ounces of this product plus nonionic surfactant. A second sequential application of 2 to 4 fluid ounces may be made approximately 45 days after the last application.

##### Bermudagrass

For burndown, apply 1 to 2 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 20 gallons of water per acre. Use 1 quart of this product in 3 to 20 gallons of water per acre east of the Rocky Mountains. Use 1 to 2 quarts of this product in 3 to 10 gallons of water per acre west of the Rocky Mountains. Use this treatment only if reduction of the bermudagrass stand can be tolerated. When burndown is required prior to harvest, allow at least 21 days to ensure sufficient time for burndown to occur.

**Suppression only (east of the Rocky Mountains)**--Apply 6 to 16 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 20 gallons of water per acre no sooner than 1 to 2 weeks after full green-up. Mowing prior to application may occur provided a minimum height of 3 inches is maintained. Rates of 6 to 10 fluid ounces of this product plus nonionic surfactant should be used in shaded conditions or where a lesser degree of suppression is desired. Sequential applications may be made when regrowth occurs and bermudagrass injury and stand reduction can be tolerated.

**Suppression only (west of the Rocky Mountains)**--Apply 16 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre up to 6 inches in height and no sooner than 1 to 2 weeks after full green-up. Mowing prior to application may occur provided a minimum height of 3 inches is maintained. Sequential applications may be made when regrowth occurs and bermudagrass injury and stand reduction can be tolerated.

#### Cool Season Grass Covers

For suppression of tall fescue, fine fescue, orchardgrass and quackgrass, apply 8 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 10 to 20 gallons of water per acre. For best suppression, add ammonium sulfate to the spray solution at a rate of 2 percent by weight or 17 pounds per 100 gallons of spray solution.

For suppression of Kentucky bluegrass covers, apply 6 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant. Do not add ammonium sulfate.

For best results, mow cool-season grass covers in the spring to even their height and apply the recommended rate of this product 3 to 4 days after mowing. Avoid treating cool season grass covers under poor growing conditions, such as drought stress (drip irrigation), disease or insect damage.

#### **LOW VOLUME APPLICATION (FLORIDA AND TEXAS)**

For burndown or control of ~~listed perennial~~ the weeds listed, apply the recommended rates of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to ~~20~~ 30 gallons of water per acre. Where weed foliage is dense, use 10 to ~~20~~ 30 gallons of water per acre.

#### Annual Weeds

Goatweed--Apply 2 to 3 quarts per acre of this product plus 17 pounds of ammonium sulfate per 100 gallons of water plus 0.5 to 1 percent nonionic surfactant by total spray volume. Apply in 20 to 30 gallons of water per acre when plants are actively growing. Use 2 quarts per acre when plants are less than 8 inches tall and 3 quarts per acre when plants are greater than 8 inches. If goatweed is greater than 8 inches tall, the addition of Krovar<sup>®</sup> II or Karmex<sup>®</sup> may improve control. Use labeled rates for these residual products.

Read and carefully observe the label claims, cautionary statements, rates and all other information on the Krovar II and Karmex labels.

#### Perennial Weeds

Apply when weeds are actively growing and at the growth stages listed in the 'Perennial Weeds Controlled' section of this label. If perennial weeds are mowed, allow weeds to regrow to the recommended stage of growth.

S = Suppression  
PC = Partial control

B = Burndown  
C = Control

| WEED SPECIES            | MON-35085 RATE PER ACRE |       |       |       |
|-------------------------|-------------------------|-------|-------|-------|
|                         | 1 qt                    | 2 qts | 3 qts | 5 qts |
| Bermudagrass            | B                       | •     | PC    | C     |
| Guineagrass             |                         |       |       |       |
| Texas and Florida Ridge | B                       | C     | C     | C     |
| Florida Flatwoods       | •                       | B     | C     | C     |
| Paragrass               | B                       | C     | C     | C     |
| Torpedograss            | S                       | •     | PC    | C     |

#### TREE CROPS

Citrus\*: citron, grapefruit, kumquat, lemon, lime, orange, pummelo, tangelo, tangerine, tangors.

Nuts\*\*: almond, chestnuts, filbert, macadamia, pecan, pistachio, walnut.

Pome Fruit\*: apple, pear.

**Stone Fruit\*\*\*:** apricots, cherries, nectarines, olives, peaches, plums/prunes.

For cherries, any application equipment listed in this section may be used in all states.

For citron and olives, apply as a directed spray only.

Any application equipment listed in this section may be used in apricots, nectarines, peaches, and plums/prunes growing in Arizona, California, Colorado, Idaho, Kansas, Kentucky, New Jersey, North Dakota, Oklahoma, Oregon, Texas, Utah, and Washington, except for peaches grown in the states specified in the following paragraph. In all other states use wiper equipment only.

For PEACHES grown in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, and Tennessee only, apply with a shielded boom sprayer or shielded wiper applicator which prevents any contact of this product with the foliage or bark of trees. Apply no later than 90 days after first bloom. Applications made after this time may result in severe damage. Remove suckers and low hanging limbs at least 10 days prior to application. Avoid applications near trees with recent pruning wounds or other mechanical injury. Apply only near trees which have been planted in the orchard for 2 or more years. EXTREME CARE MUST BE TAKEN TO ENSURE NO PART OF THE PEACH TREE IS CONTACTED.

**Tropical Fruit:** acerola, atemoya\*, avocado\*, banana (plantains), breadfruit\*, canistel\*, carambola\*, coffee\*\*\*\*, dates\*, figs\*, guava, jaboticaba\*, jackfruit\*, longan\*, lychee\*, mango\*, papaya, passion fruit\*, persimmons\*, sapodilla, sapote, soursop, sugar apple\*, tamarind\*, tea. Allow a minimum of 1 day between last application and harvest of guava and papaya. In coffee and banana, delay applications 3 months after transplanting to allow the new coffee or banana plant to become established.

**NOTE:**

\* Allow a minimum of 14 days between last application and harvest.

\*\* Allow a minimum of 21 days between last application and harvest of these crops.

\*\*\* Allow a minimum of 17 days between last application and harvest.

\*\*\*\*Allow a minimum of 28 days between last application and harvest.

---

**VINE CROPS**



---

## Kiwi Fruit\*

**Grapes:**\* Any variety of table, wine, or raisin grape may be treated with any equipment listed in this section.

In the northeast and Great Lakes regions, applications must be made prior to the end of bloom stage of grapes to avoid injury.

\* Applications should not be made when green shoots, canes, or foliage are in the spray zone.

\* Allow a minimum of 14 days between last application and harvest.

---

## CALIFORNIA

---

~~Roundup® herbicide~~ This product has been approved by the U.S. Environmental Protection Agency and by the state of California for the uses, crops and sites listed in this label. With the exception of these items, this booklet contains the material approved by California.

These use conditions, crops and sites may not be treated with this product in California until approval is received:

- Cool season true growth regulation

Product protected by  
U.S. Pat. No 3,799,758,  
U.S. Pat. No. 4,405,531 and U.S. Pat. No. 4,840,650.  
Other patents pending.  
No license granted under any  
non-U.S. patent(s).

EPA Reg. No. 524-445

897.10-005-16/53  
898.07-003-01/53

This product has been approved for use in California except as stated otherwise on page 122.

---

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

---

©MONSANTO COMPANY 1990

MONSANTO COMPANY  
AGRICULTURAL PRODUCTS  
ST. LOUIS, MISSOURI, 63167 U.S.A.

Dr. Sheila A. Schuette  
Monsanto Company  
700 14th Street NW., Suite 1100  
Washington, DC 20005

Dear Dr. Schuette:

Subject: MON-35085 Herbicide (Aerial Application In California)  
EPA Registration No. 524-445  
Your Letter Dated February 6, 1991

The amendment referred to above, submitted in connection with registration under section 3(c)(7)(A) of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), is acceptable provided that you:

1. Submit/site all data required for registration/reregistration of your product under FIFRA section 3(c)(5) and section 4 when the Agency requires all registrants of similar products to submit such data.
2. Submit five (5) copies of your final printed labeling before you release the product for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Sincerely yours,

Robert J. Taylor  
Product Manager (25)  
Fungicide-Herbicide Branch  
Registration Division (H7505C)

Enclosure

54426:I:CH-43:Walters:L25-1:KEVRIC:03/04/91:13/08/91:TK

CONCURRENCES

|         |             |  |  |  |  |  |  |  |  |
|---------|-------------|--|--|--|--|--|--|--|--|
| SYMBOL  | H7505C      |  |  |  |  |  |  |  |  |
| SURNAME | DR. Walters |  |  |  |  |  |  |  |  |
| DATE    | 3/15/91     |  |  |  |  |  |  |  |  |

# Monsanto

---

Monsanto Company  
Suite 1100  
700 14th Street, N.W.  
Washington, D.C. 20005

February 14, 1991

Document Processing Center (Amend)  
Office of Pesticide Programs - H7504C  
U.S. Environmental Protection Agency  
1921 Jefferson Davis Highway  
Crystal Mall #2, Room 226A  
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor  
Product Manager (25)

Subject: **MON-35085 Herbicide (EPA Reg. No. 524-445)**  
**Supplemental Label:** Aerial application in California.

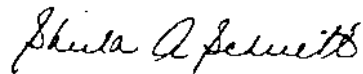
Dear Sir:

Enclosed for Agency review and approval are five (5) copies of a supplemental label for MON-35085 herbicide recommending aerial application in California. This is an approved use with additional guidance on the correct method of application and the use of buffer strips.

An Application for Pesticide Amendment and Certification with Respect to Citation of Data and General Offer to Pay are enclosed.

If you have any questions regarding this request, please contact Dr. Kevin Cannon or me.

Sincerely,



Sheila A. Schuette, Ph.D.  
Senior Registration Specialist  
(314) 694-7248

229

## SUPPLEMENTAL LABELING

READ THE ENTIRE LABEL BOOKLET FOR MON-35085 BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labeling refers to the booklet for MON-35085 herbicide and this supplement.

### MON-35085 Herbicide by Monsanto

EPA Reg. No. 524-445

---

#### FOR AERIAL APPLICATION IN CALIFORNIA ONLY

---

Keep out of reach of children.

#### WARNING!

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

---

#### DIRECTIONS FOR USE

---

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

This label must be in the possession of the user at the time of herbicide application.

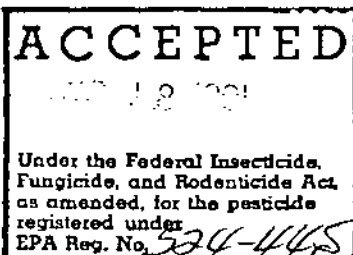
See "GENERAL INFORMATION" and "MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS" sections of the label booklet for essential product performance information.

See the "CROPPING SYSTEMS" section of the label booklet for specific recommendations on the use of this product.

**EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF THE SPRAY WITH FOLIAGE, GREEN STEMS, OR FRUIT OF DESIRABLE CROPS, PLANTS, TREES OR OTHER DESIRABLE VEGETATION, SINCE SEVERE DAMAGE OR DESTRUCTION MAY RESULT.**

Aerial applications of this product are allowed in the following situations:

1. In fallow and reduced tillage systems prior to the emergence or transplanting of labeled crops.



2. In cotton, prior to harvest. Refer to the Roundup booklet for specific preharvest application instructions.

Do not plant subsequent crops other than those listed in the label booklet for this product for 30 days following application.

When applied as recommended, under the conditions described, this product controls annual and perennial weeds listed in the label booklet.

DO NOT EXCEED A MAXIMUM RATE OF 1 QUART PER ACRE OF THIS PRODUCT WHEN MAKING APPLICATIONS BY AIR.

#### AERIAL EQUIPMENT

Use the recommended rates of this product in 3 to 15 gallons of water per acre.

Do not apply directly to water or wetland (swamps, bogs, marshes or potholes). Do not contaminate water when disposing of equipment washwaters.

AVOID DRIFT - DO NOT APPLY WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITION WHICH WILL ALLOW DRIFT. DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

Use the following guidelines when aerial applications are made near crops or desirable perennial vegetation after bud break and before total leaf drop, and/or near other desirable vegetation or annual crops.

1. Do not apply within 100 feet of all desirable vegetation or crop(s).
2. If wind up to 5 miles per hour is blowing toward desirable vegetation or crop(s), do not apply within 500 feet of the desirable vegetation or crop(s).
3. Winds blowing from 5 to 10 miles per hour toward desirable vegetation or crop(s) may require buffer zones in excess of 500 feet.
4. Do not apply when winds are in excess of 10 miles per hour or when inversion conditions exist.

Coarse sprays are less likely to drift; therefore, do not use nozzles or nozzle configurations which dispense spray as fine spray droplets. Do not angle nozzles forward into the airstream and do not increase spray volume by increasing nozzle pressure.

Drift control additives may be used. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive level.

**Ensure uniform application** - To avoid streaked, uneven or overlapped application, use appropriate marking devices.

Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove residues of this product accumulated during spraying or from spills. PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART. LANDING GEAR IS MOST SUSCEPTIBLE. The maintenance of an organic coating (paint) which meets aerospace specification MIL-C-38413 may prevent corrosion.

---

Read the "LIMIT OF WARRANTY AND LIABILITY" in the label for MON-35085 before using this product. Those terms apply to this supplemental labeling and if those terms are not acceptable, return the product unopened at once.

---

©MONSANTO COMPANY 1991

MAP-3169

MONSANTO COMPANY  
AGRICULTURAL PRODUCTS  
ST. LOUIS, MISSOURI 63167

| SUBMISSION REVIEW RECORD      |  |                                |                       | 1. REGISTRATION NUMBER |  |  |  | CYCLE                | 2. DATE RECEIVED    |  |  |  |
|-------------------------------|--|--------------------------------|-----------------------|------------------------|--|--|--|----------------------|---------------------|--|--|--|
| 3. SCID PUBLICATION NECESSARY |  |                                |                       | 4. PETITION NO.        |  |  |  | 5. RECEIVED PM TEAM  |                     |  |  |  |
| 5. METHOD OF SUPPORT          |  |                                |                       | 7. PRODUCT MANAGER     |  |  |  | NO.                  | 8. PROJECTED RETURN |  |  |  |
| 9. DATE PULLED                |  |                                |                       | 10. DATE PUBLISHED     |  |  |  | 11. ACTION TYPE      |                     |  |  |  |
| 12. OUTGOING DATE             |  |                                |                       | DATE REVIEW COMPLETED  |  |  |  | COM-<br>MENT<br>CODE |                     |  |  |  |
| REV.<br>SEQ.                  | REVIEW<br>TYPE                                   | REVIEWER<br>CODE<br>(Initials) | SIGNATURE OF REVIEWER |                        |  |  |  |                      |                     |  |  |  |
| A                             | REVIEWABILITY TEAM                               |                                |                       |                        |  |  |  |                      |                     |  |  |  |
| B                             | PRODUCT MANAGER TEAM EFFICACY REVIEW             |                                |                       |                        |  |  |  |                      |                     |  |  |  |
| C                             | PRODUCT MANAGER TEAM HUMAN SAFETY REVIEW         |                                |                       |                        |  |  |  |                      |                     |  |  |  |
| D                             | PRODUCT MANAGER TEAM ENVIRONMENTAL SAFETY REVIEW |                                |                       |                        |  |  |  |                      |                     |  |  |  |
| E                             | PRODUCT MANAGER TEAM RESUBMISSION REVIEW         |                                |                       |                        |  |  |  |                      |                     |  |  |  |
| F                             | PRODUCT MANAGER                                  |                                | VKW NAC               | 030791                 |  |  |  |                      |                     |  |  |  |
| G                             | INTERAGENCY REFERRAL                             |                                |                       |                        |  |  |  |                      |                     |  |  |  |
| H                             | COST-BENEFIT REVIEW                              |                                |                       |                        |  |  |  |                      |                     |  |  |  |
| I                             | PUBLIC COMMENTS REVIEW                           |                                |                       |                        |  |  |  |                      |                     |  |  |  |
| J                             | EEE BRANCH INSECTICIDE EFFICACY                  |                                |                       |                        |  |  |  |                      |                     |  |  |  |
| K                             | EEE BRANCH HERBICIDE EFFICACY                    |                                |                       |                        |  |  |  |                      |                     |  |  |  |
| L                             | EEE BRANCH FUNGICIDE EFFICACY                    |                                |                       |                        |  |  |  |                      |                     |  |  |  |
| M                             | EEE BRANCH RODENTICIDE EFFICACY                  |                                |                       |                        |  |  |  |                      |                     |  |  |  |
| N                             | EEE BRANCH DISINFECTANT EFFICACY                 |                                |                       |                        |  |  |  |                      |                     |  |  |  |
| O                             | CHEMISTRY BRANCH RESIDUE CHEMISTRY               |                                |                       |                        |  |  |  |                      |                     |  |  |  |
| P                             | EEE BRANCH ENVIRONMENTAL CHEMISTRY               |                                |                       |                        |  |  |  |                      |                     |  |  |  |
| Q                             | TOXICOLOGY BRANCH HUMAN SAFETY                   |                                |                       |                        |  |  |  |                      |                     |  |  |  |
| R                             | EEE BRANCH ENVIRONMENTAL SAFETY                  |                                |                       |                        |  |  |  |                      |                     |  |  |  |
| S                             |  |                                |                       |                        |  |  |  |                      |                     |  |  |  |
| T                             |  |                                |                       |                        |  |  |  |                      |                     |  |  |  |
| PRODUCT MANAGER SIGNATURE     |  |                                |                       | TYPE OF RESPONSE       |  |  |  | CODE                 |                     |  |  |  |



United States Environmental Protection Agency  
Office of Pesticide Programs (TS-767)  
Washington, DC 20460

Application for Pesticide: ☐ Registration  
☒ Amendment

OPP Identifier Number

140861

## Section I

1. Company/Product Number: Monsanto/524-445  
2. Date: February 14, 1991  
3. Product Manager: Robert J. Taylor (25)  
4. Proposed Classification: ☒ General ☐ Restricted

5. Name and Address of Applicant (Include ZIP Code)

Monsanto Company  
Suite 1100  
700 14th Street, N.W.  
Washington, D.C. 20005

☐ Check if this is a new address

6. Product Name

MON 35085 Herbicide

## Section II - Amendment Information

1. Subject: ☐ Resubmission in response to Agency letter ☐ Final printed label in response to Agency letter ☒ Other (explain below)  
Date of Letter: 2/14/91

Amendment to the Use Instructions: Supplemental label  
Aerial application in California

## Section III

1. Material This Product Will Be Packaged In: ☐ Child-Resistant Packaging ☒ Yes ☒ No  
Unit Packaging: ☒ Yes ☐ No  
If "Yes," Unit package wgt: 24 lb. No. per container: 2  
Water-Soluble Packaging: ☐ Yes ☒ No  
If "Yes," Package weight: No. per container: 2  
2. Type of Container: ☒ Metal ☐ Plastic ☐ Glass ☐ Paper ☐ Other (Specify)

3. Location of Net Contents Information: ☐ Label ☒ Container  
4. Size(s) of Retail Container: 1 gal; 2.5 gal; 30 gal; 54 gal

5. Location of Label Directions: ☒ On Label ☒ On material accompanying product  
6. Manner in Which Label Is Affixed To Product: ☐ Lithograph ☒ Other (Specify) Vinyl glued  
☐ Paper glued  
☐ Stenciled

## Section IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application).

Name

Kevin F. Cannon, Ph.D.

Title: Manager, Agricultural Affairs  
Telephone No. (Include Area Code): (202) 783-2460  
6. Date Application Received (Stamp only)

## Certification

I certify that the statements I have made on this form and all attachments thereto are true, accurate, and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

2. Signature: Sheila A. Schuette  
3. Title: Senior Registration Specialist  
4. Typed Name: Sheila A. Schuette, Ph.D.  
5. Date Signed: 2/14/91



# Paperwork Reduction Act Notice and Instructions

## Paperwork Reduction Act Notice

Public reporting burden for this collection of information is estimated to average of 0.85 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, PH-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

## Instructions

### General

This form is to be used for all applications for new and amended registrations for pesticide products.

In order to process an application for new registration submitted on this form, the following material must accompany the application:

1. Offer to Pay Statement (EPA Form 8570-27, -28, -29). (If not exempted by 40 CFR 162.9-1(b).)
2. Confidential Statement of Formula (EPA Form 8570-4).
3. Five copies of draft labeling.
4. Three copies of any data submitted.

**Submission of Labeling** - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8 1/2 x 11 inch paper or as a mockup of the proposed label. If prepared as a mockup, it should be constructed in such a way as to facilitate storage in an 8 1/2 x 11 inch file. Mockup labels significantly smaller than 8 1/2 x 11 inches should be mounted on 8 1/2 x 11 inch paper for submission.

**Submission of Data** - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

### Specific

Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Section I, III, and IV must be completed by the applicant. For applications submitted in connection with amended registration actions, Section I, II, and IV must be completed by the applicant.

**Block A** - Check the appropriate action for which you are submitting this form.

**Section I** - This Section must be completed for both Registration and Amended Registration actions.

1. **Company/Product Number** - Insert your company number, if one has been assigned. This number may have been assigned to you as a basic registrant, a distributor, or as an establishment. If application is for an amendment, insert the registration number of the product.
2. **Date** - Fill in the appropriate date.
3. **Product Manager** - If known, fill in the name and number of the Product Manager.
4. **Proposed Classification** - Specify the proposed classification for this product.
5. **Name and Address of Applicant** - The name of the firm or person and address shown in your application is the person or firm to whom registration will be issued. If you are acting in behalf of another party you must submit authorization from that party to act for them in registration matters.

An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.

6. **Product Name** - Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.

### Amendment Information

**Section II** - This Section must be completed for all applications submitted in connection with Amended Registration.

1. **Subject of Amendment** - Check the appropriate block, and provide a brief explanation of the purpose(s) for the amendment, such as: "the addition of a site, pest, or crop"; "to change inert ingredient"; "general label revisions of precautionary statements," etc.

### Packaging and Container Information

**Section III** - This Section must be completed for all applications submitted in connection with New Registration.

1. **Type of Packaging** - Check the appropriate block if your product will be packaged in the indicated packaging types. Indicate the size of the individual packets and number per retail container.
2. **Type of Retail Container** - Indicate type of container in which product will be marketed.
3. **Location of Net Contents** - Specify the net contents of all retail containers for your product.
4. **Size(s) of Retail Container** - Specify the net contents of all retail containers for your product.
5. **Location of Use Directions** - Indicate the location of the use directions for your product.
6. **Manner in which Label is affixed to product** - Indicate the method product labeling is attached to retail container.

### Contact Point

**Section IV** - This Section must be completed for all Registration and Amended Registration applications.

- 1-5. Self-explanatory.
6. EPA Use Only.

CERTIFICATION WITH RESPECT TO CITATION OF DATA

EPA File Symbol/Reg. No. 524-445 Date of Application February 14, 1991

Name of Product MON-35085 Herbicide

Applicant's Name and Address Monsanto Company

Suite 1100

700 14th Street, N.W.

Washington, D.C. 20005

1. This application is supported by all data submitted or cited in the application. In addition, if cite-all options are indicated, this application is supported by all data in the Agency's files that concern the properties or effects of this product or of any other product that is identical or substantially similar, and that is one of the types of data that would be required to be submitted if this application sought the initial registration of a product of identical or similar composition and intended uses under the data requirements in effect on the date of approval of this application.

2. I certify that, for each study cited in support of this application for registration that is an exclusive use study, I have obtained the written permission of the original data submitter to cite that study.

3. I certify that, for each study cited in support of this application for registration that is not an exclusive use study:

I have obtained the written permission of the original data submitter to cite that study; or

I have notified in writing the companies who have submitted data I have cited to support those applications and have offered to: (a) Pay compensation for those data in accordance with section 3(c)(1)(D) and 3(c)(2)(D) of the Federal Insecticide, Fungicide and Rodenticide Act; and (b) Commence negotiations to determine which data are subject to the compensation requirements of FIFRA and the amount and terms of compensation due, if any. The companies I have notified are: (Check one)

☐ All companies listed on the Pesticide Data Submitters List for all active ingredients contained in my product (Cite-all method or cite-all option under Selective Method). (Also sign the General Offer to Pay Statement below).

☒ Monsanto Company has submitted the studies which I have cited (Selective Method).

Date February 14, 1991

Signature Shirley D. Schmidt

2/14/91

Title Senior Registration Specialist

**General Offer to Pay:** I hereby offer and agree to pay compensation to other persons, with regard to the approval of this application, to the extent required by FIFRA sec. 3(c)(1)(D) and 3(c)(2)(D).

Date February 14, 1991

Signature Shirley D. Schmidt

2/14/91

Title Senior Registration Specialist

236

Dr. Sheila A. Schuette  
Monsanto Company  
700 14th Street NW., Suite 1100  
Washington, DC 20005

Dear Dr. Schuette:

Subject: MON-35085 Herbicide (Control of Quackgrass and Orchardgrass  
in Corn and Soybeans)  
EPA Registration No. 524-445  
Your Application Dated February 14, 1991

The labeling referred to above, submitted in connection with  
registration under the Federal Insecticide, Fungicide, and Rodenticide  
Act, as amended, is acceptable. Please submit five (5) copies of your  
final printed labels before you release the product for shipment. A  
stamped copy of labeling is enclosed for your records.

Sincerely yours,

Robert J. Taylor  
Product Manager (25)  
Fungicide-Herbicide Branch  
Registration Division (H7505C)

Enclosure

54426:I:Walters:L25-1:KEVRIC:03/04/91:13/08/91:TK:DD

CONCURRENCES

|         |              |  |  |  |  |  |  |    |
|---------|--------------|--|--|--|--|--|--|----|
| SYMBOL  | H7505C       |  |  |  |  |  |  |    |
| SURNAME | V.K. Walters |  |  |  |  |  |  |    |
| DATE    | 3/15/91      |  |  |  |  |  |  | 23 |

# Monsanto

---

Monsanto Company  
Suite 1100  
700 14th Street, N.W.  
Washington, D.C. 20005

February 14, 1991

Document Processing Center (Amend)  
Office of Pesticide Programs - H7504C  
U.S. Environmental Protection Agency  
1921 Jefferson Davis Highway  
Crystal Mall #2, Room 226A  
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor  
Product Manager (25)

Subject: **MON-35085 Herbicide (EPA Reg. No. 524-445)**  
**Supplemental Label:** Suppression of Quackgrass and Orchardgrass  
in Ohio

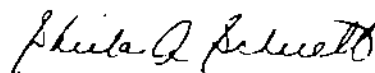
Dear Sir:

Enclosed for Agency review and approval are five (5) copies of a supplemental MON-35085 herbicide label. This supplemental label provides more specific guidance on the use of MON-35085 herbicide for the suppression of quackgrass and orchardgrass prior to planting corn or soybeans in Ohio.

An Application for Pesticide Amendment and Certification with Respect to Citation of Data and General Offer to Pay are enclosed.

If you have any questions regarding this request, please contact Dr. Kevin Cannon or me.

Sincerely,



Sheila A. Schuette, Ph.D.  
Senior Registration Specialist  
(314) 694-7248

## SUPPLEMENTAL LABELING

READ AND FOLLOW THE ENTIRE LABEL FOR MON-35085 HERBICIDE BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labeling refers to the label for MON-35085 herbicide and this supplement.

**MON-35085**  
**Herbicide by Monsanto**

EPA Reg. No. 524-445

---

FOR DISTRIBUTION AND USE ONLY WITHIN OHIO.  
FOR SUPPRESSION OF QUACKGRASS AND ORCHARDGRASS IN  
CORN AND SOYBEAN NO-TILL SYSTEMS.

---

Keep out of reach of children.

### WARNING!

In case of an emergency involving this product, Call Collect,  
day or night, (314) 694-4000.

---

### DIRECTIONS FOR USE

---

It is a violation of Federal law to use this product in a manner inconsistent with the labeling.

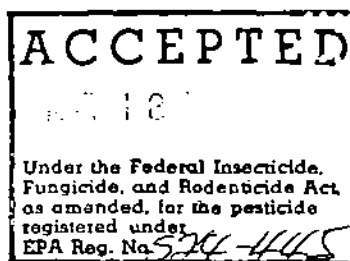
This supplemental labeling and the label booklet for MON-35085 must be in the possession of the user at the time of herbicide application.

AVOID CONTACT WITH FOLIAGE, GREEN STEMS, OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, SINCE SEVERE INJURY OR DESTRUCTION MAY RESULT.

See "GENERAL INFORMATION", "APPLICATION EQUIPMENT AND TECHNIQUES" and "CROPPING SYSTEMS" sections of the label booklet for MON-35085 for essential product information.

### RECOMMENDATIONS

In the spring prior to planting corn or soybeans, apply 1 pint per acre of this product plus 0.5 to 1 percent nonionic



surfactant by total spray volume in 5 to 10 gallons of water per acre.

The addition of ammonium sulfate at the rate of 17 pounds per 100 gallons of spray solution is recommended for enhanced performance under stress conditions.

Allow 3 to 7 days after application before planting.

After planting, but prior to crop emergence, apply atrazine, Lariat®, Bullet® or Biçep™ for corn or Lorox™, Lorox™ Plus or Preview™ for soybeans at labeled rates with crop oil or surfactant to maximize overall postemergence control.

---

Read the "LIMIT OF WARRANTY AND LIABILITY" in the label booklet for MON-35085 before using this product. Those terms apply to this supplemental labeling and if those terms are not acceptable, return the product unopened at once.

---

®Bullet and Lariat are registered trademarks of Monsanto Company.  
™Lorox and Preview are trademarks of E.I. duPont de Nemours and Company.

©MONSANTO COMPANY 1991

MAP-3172

MONSANTO COMPANY  
AGRICULTURAL PRODUCTS  
ST. LOUIS, MISSOURI 63167

| SUBMISSION REVIEW RECORD                           |  |                          | 1. REGISTRATION NUMBER |  |  |  | CYCLE               | 2. DATE RECEIVED      |     |     |
|--|--|--------------------------|------------------------|--|--|--|---------------------|-----------------------|-----|-----|
| 3. JCID PUBLICATION NECESSARY                      |  |                          | 4. PETITION NO.        |  |  |  | 5. RECEIVED PM TEAM |                       |     |     |
| 6. METHOD OF SUPPORT                               |  |                          | 7. PRODUCT MANAGER     |  |  |  | NO.                 | 8. PROJECTED RETURN   |     |     |
| 9. DATE PULLED                                     |  | 10. DATE PUBLISHED       | 11. ACTION TYPE        |  |  |  | CODE                | 12. OUTGOING DATE     |     |     |
| 13. REVIEW TYPE                                    |  | REVIEWER CODE (Initials) | SIGNATURE OF REVIEWER  |  |  |  | COMMENT CODE        | DATE REVIEW COMPLETED |     |     |
| A REVIEWABILITY TEAM                               |  |                          |                        |  |  |  |                     |                       |     |     |
| B PRODUCT MANAGER TEAM EFFICACY REVIEW             |  |                          |                        |  |  |  |                     |                       |     |     |
| C PRODUCT MANAGER TEAM HUMAN SAFETY REVIEW         |  |                          |                        |  |  |  |                     |                       |     |     |
| D PRODUCT MANAGER TEAM ENVIRONMENTAL SAFETY REVIEW |  |                          |                        |  |  |  |                     |                       |     |     |
| E PRODUCT MANAGER TEAM RESUBMISSION REVIEW         |  |                          |                        |  |  |  |                     |                       |     |     |
| F PRODUCT MANAGER                                  |  |                          | VKW WAC                |  |  |  |                     | 0/3                   | 0/7 | 4/1 |
| G INTERAGENCY REFERRAL                             |  |                          |                        |  |  |  |                     |                       |     |     |
| H COST-BENEFIT REVIEW                              |  |                          |                        |  |  |  |                     |                       |     |     |
| I PUBLIC COMMENTS REVIEW                           |  |                          |                        |  |  |  |                     |                       |     |     |
| J EEE BRANCH INSECTICIDE EFFICACY                  |  |                          |                        |  |  |  |                     |                       |     |     |
| K EEE BRANCH HERBICIDE EFFICACY                    |  |                          |                        |  |  |  |                     |                       |     |     |
| L EEE BRANCH FUNGICIDE EFFICACY                    |  |                          |                        |  |  |  |                     |                       |     |     |
| M EEE BRANCH RODENTICIDE EFFICACY                  |  |                          |                        |  |  |  |                     |                       |     |     |
| N EEE BRANCH DISINFECTANT EFFICACY                 |  |                          |                        |  |  |  |                     |                       |     |     |
| O CHEMISTRY BRANCH RESIDUE CHEMISTRY               |  |                          |                        |  |  |  |                     |                       |     |     |
| P EEE BRANCH ENVIRONMENTAL CHEMISTRY               |  |                          |                        |  |  |  |                     |                       |     |     |
| Q TOXICOLOGY BRANCH HUMAN SAFETY                   |  |                          |                        |  |  |  |                     |                       |     |     |
| R EEE BRANCH ENVIRONMENTAL SAFETY                  |  |                          |                        |  |  |  |                     |                       |     |     |
| S  |  |                          |                        |  |  |  |                     |                       |     |     |
| T  |  |                          |                        |  |  |  |                     |                       |     |     |
| PRODUCT MANAGER SIGNATURE                          |  |                          | TYPE OF RESPONSE       |  |  |  |                     | CODE                  |     |     |



United States Environmental Protection Agency  
Office of Pesticide Programs (TS-767)  
Washington, DC 20460

Application for Pesticide: ☐ Registration  
☒ Amendment

OPP Identifier Number

140866

## Section I

1. Company/Product Number  
Monsanto/524-445

2. Date  
February 14, 1991

3. Product Manager  
Robert J. Taylor (25)

4. Proposed Classification  
☒ General ☐ Restricted

5. Name and Address of Applicant (Include ZIP Code)

Monsanto Company  
Suite 1100  
700 14th Street, N.W.  
Washington, D.C. 20005

☐ Check if this is a new address

6. Product Name

MON 35085 Herbicide

## Section II - Amendment Information

1. Subject  
☐ Resubmission in response to Agency letter ☐ Final printed label in response to Agency letter ☒ Other (explain below)

Date of Letter  
2/14/91

Amendment to Use Instructions: Supplemental label  
Suppression of quackgrass and orchardgrass in Ohio

## Section III

1. Material This Product Will Be Packaged In  
Child-Resistant Packaging ☐ Yes ☒ No

Unit Packaging ☒ Yes ☐ No  
If "Yes,"  
Unit package wgt No. per container  
24 lb. 2

Water-Soluble Packaging ☐ Yes ☒ No  
If "Yes,"  
Package weight No. per container

2. Type of Container  
☒ Metal  
☒ Plastic  
☐ Glass  
☐ Paper  
☐ Other (Specify)

3. Location of Net Contents Information  
☐ Label ☒ Container

4. Size(s) of Retail Container  
1 gal; 2.5 gal; 30 gal; 54 gal

5. Location of Label Directions  
☒ On Label  
☒ On material accompanying product

6. Manner in Which Label Is Affixed To Product  
☐ Lithograph ☒ Other (Specify)  
☐ Paper glued  
☐ Stenciled Vinyl glued

## Section IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application).

Name

Kevin F. Cannon, Ph.D.

Title

Manager, Agricultural Affairs

Telephone No. (Include Area Code)

(202) 783-2460

6. Date Application Received (Stamped)

Certification  
I certify that the statements I have made on this form and all attachments thereto are true, accurate, and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

2. Signature

3. Title

Senior Registration Specialist

4. Typed Name

Sheila A. Schuette, Ph.D.

5. Date Signed

2/14/91

242



# Paperwork Reduction Act Notice and Instructions

## Paperwork Reduction Act Notice

Public reporting burden for this collection of information is estimated to average of 0.85 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

## Instructions

### General

This form is to be used for all applications for new and amended registrations for pesticide products.

In order to process an application for new registration submitted on this form, the following material must accompany the application:

1. Offer to Pay Statement (EPA Form 8570-27, -28, -29). (If not exempted by 40 CFR 162.9-1(b).)
2. Confidential Statement of Formula (EPA Form 8570-4).
3. Five copies of draft labeling.
4. Three copies of any data submitted.

**Submission of Labeling** - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8 1/2 x 11 inch paper or as a mockup of the proposed label. If prepared as a mockup it should be constructed in such a way as to facilitate storage in an 8 1/2 x 11 inch file. Mockup labels significantly smaller than 8 1/2 x 11 inches should be mounted on 8 1/2 x 11 inch paper for submission.

**Submission of Data** - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

### Specific

Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Section I, III, and IV must be completed by the applicant. For applications submitted in connection with amended registration actions, Section I, II, and IV must be completed by the applicant.

**Block A** - Check the appropriate action for which you are submitting this form.

**Section I** - This Section must be completed for both Registration and Amended Registration actions.

1. **Company/Product Number** - Insert your company number, if one has been assigned. This number may have been assigned to you as a basic registrant, a distributor, or as an establishment. If application is for an amendment, insert the registration number of the product.
2. **Date** - Fill in the appropriate date.
3. **Product Manager** - If known, fill in the name and number of the Product Manager.
4. **Proposed Classification** - Specify the proposed classification for this product.
5. **Name and Address of Applicant** - The name of the firm or person and address stated in your application is the person or firm to whom registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration matters.

An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.

6. **Product Name** - Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.

### Amendment Information

**Section II** - This Section must be completed for all applications submitted in connection with Amended Registration.

1. **Subject of Amendment** - Check the appropriate block, and provide a brief explanation of the purpose(s) for the amendment, such as: "the addition of a site, pest, or crop"; "to change inert ingredient"; "general label revisions of precautionary statements," etc.

### Packaging and Container Information

**Section III** - This Section must be completed for all applications submitted in connection with New Registration.

1. **Type of Packaging** - Check the appropriate block if your product will be packaged in the indicated packaging types. Indicate the size of the individual packets and number per retail container.
2. **Type of Retail Container** - Indicate type of container in which product will be marketed.
3. **Location of Net Contents** - Specify the net contents of all retail containers for your product.
4. **Size(s) of Retail Container** - Specify the net contents of all retail containers for your product.
5. **Location of Use Directions** - Indicate the location of the use directions for your product.
6. **Manner in which label is affixed to product** - Indicate the method product labeling is attached to retail container.

### Contact Point

**Section IV** - This Section must be completed for all Registration and Amended Registration applications.

- 1-5. Self-explanatory.
6. EPA Use Only.

**CERTIFICATION WITH RESPECT TO CITATION OF DATA**

EPA File Symbol/Reg. No. 524-445 Date of Application February 14, 1991

Name of Product MON-35085 Herbicide

Applicant's Name and Address Monsanto Company

Suite 1100

700 14th Street, N.W.

Washington, D.C. 20005

1. This application is supported by all data submitted or cited in the application. In addition, if cite-all options are indicated, this application is supported by all data in the Agency's files that concern the properties or effects of this product or of any other product that is identical or substantially similar, and that is one of the types of data that would be required to be submitted if this application sought the initial registration of a product of identical or similar composition and intended uses under the data requirements in effect on the date of approval of this application.

2. I certify that, for each study cited in support of this application for registration that is an exclusive use study, I have obtained the written permission of the original data submitter to cite that study.

3. I certify that, for each study cited in support of this application for registration that is not an exclusive use study:

I have obtained the written permission of the original data submitter to cite that study; or

I have notified in writing the companies who have submitted data I have cited to support those applications and have offered to: (a) Pay compensation for those data in accordance with section 3(c)(1)(D) and 3(c)(2)(D) of the Federal Insecticide, Fungicide and Rodenticide Act; and (b) Commence negotiations to determine which data are subject to the compensation requirements of FIFRA and the amount and terms of compensation due, if any. The companies I have notified are: (Check one)

☐ All companies listed on the Pesticide Data Submitters List for all active ingredients contained in my product (Cite-all method or cite-all option under Selective Method). (Also sign the General Offer to Pay Statement below).

☒ Monsanto Company has submitted the studies which I have cited (Selective Method).

Date February 14, 1991

Signature Shirley A. Schmitt

2/14/91

Title Senior Registration Specialist

**General Offer to Pay:** I hereby offer and agree to pay compensation to other persons, with regard to the approval of this application, to the extent required by FIFRA sec. 3(c)(1)(D) and 3(c)(2)(D).

Date February 14, 1991

Signature Shirley A. Schmitt

2/14/91

Title Senior Registration Specialist

244

MAR 18 1991

Dr. Sheila A. Schuette  
Monsanto Company  
700 14th Street NW., Suite 1100  
Washington, DC 20005

Dear Dr. Schuette:

Subject: MON-35085 Herbicide (Control of Bermudagrass in Mali)  
EPA Registration No. 524-445  
Your Application Dated February 14, 1991

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable. Please submit five (5) copies of your final printed labeling before you release the product for shipment. A stamped copy of labeling is enclosed for your records.

Sincerely yours,

Robert J. Taylor  
Product Manager (25)  
Fungicide-Herbicide Branch  
Registration Division (H7505C)

Enclosure

54426:I:Walters:L25-1:KEVRIC:03/04/91:13/08/91:TK:DD

| CONCURRENCES |              |  |  |  |  |  |  |
|--------------|--------------|--|--|--|--|--|--|
| SYMBOL       | H7505C       |  |  |  |  |  |  |
| SURNAME      | H.K. Walters |  |  |  |  |  |  |
| DATE         | 5/18/91      |  |  |  |  |  |  |

EPA Form 1320-1 (12-70)

OFFICIAL FILE COPY

245

# Monsanto

---

Monsanto Company  
Suite 1100  
700 14th Street, N.W.  
Washington, D.C. 20005

February 14, 1991

Document Processing Center (Amend)  
Office of Pesticide Programs - H7504C  
U.S. Environmental Protection Agency  
1921 Jefferson Davis Highway  
Crystal Mall #2, Room 226A  
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor  
Product Manager (25)

Subject: **MON-35085 Herbicide (EPA Reg. No. 524-445)**  
**Supplemental Label: Control of Bermudagrass in the Fall.**

Dear Sir:

Enclosed for Agency review and approval are five (5) copies of a supplemental label for MON-35085 herbicide. This supplemental label provides more specific guidance on the use of MON-35085 herbicide for the control of bermudagrass when applications are made in the fall.

An Application for Pesticide Amendment and Certification with Respect to Citation of Data and General Offer to Pay are enclosed.

If you have any questions regarding this request, please contact Dr. Kevin Cannon or me.

Sincerely,



Sheila A. Schuette, Ph.D.  
Senior Registration Specialist  
(314) 694-7248

## **SUPPLEMENTAL LABELING**

READ AND FOLLOW THE ENTIRE LABEL FOR MON-35085 HERBICIDE BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labeling refers to the label for MON-35085 herbicide and this supplement.

**MON-35085**  
**Herbicide by Monsanto**

EPA Reg. No. 524-445

---

FOR DISTRIBUTION AND USE ONLY WITHIN DELAWARE, MARYLAND,  
NORTH CAROLINA, SOUTH CAROLINA AND VIRGINIA.

FOR CONTROL OF BERMUDAGRASS (WIREGRASS) IN THE FALL.

---

Keep out of reach of children.

### **WARNING!**

In case of an emergency involving this product, Call Collect,  
day or night, (314) 694-4000.

---

### **DIRECTIONS FOR USE**

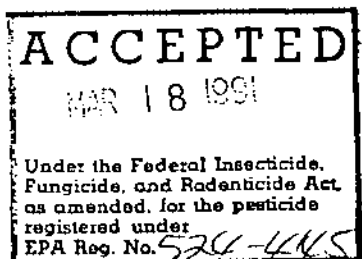
---

It is a violation of Federal law to use this product in any manner inconsistent with the labeling.

This supplemental labeling and the label booklet for MON-35085 must be in the possession of the user at the time of herbicide application.

AVOID CONTACT WITH FOLIAGE, GREEN STEMS, OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, SINCE SEVERE INJURY OR DESTRUCTION MAY RESULT.

See "GENERAL INFORMATION", "APPLICATION EQUIPMENT AND TECHNIQUES" and "CROPPING SYSTEMS" sections of the label booklet for MON-35085 for essential product information.



## RECOMMENDATIONS

1. Make applications in the fall when bermudagrass is actively growing. For bermudagrass that has been mowed, tilled or cut, allow regrowth prior to treatment.
2. Apply 2 quarts of this product in 3 to 10 gallons of water per acre.
3. Add a nonionic surfactant at 0.5 to 1 percent of the total spray volume.
4. Use 3 to 5 quarts of this product per acre on thick, well established bermudagrass sods.
5. Make applications using flat fan nozzles (8001.5, 8002, 8003).

---

Read the "LIMIT OF WARRANTY AND LIABILITY" in the label booklet for MON-35085 before using this product. Those terms apply to this supplemental labeling and if those terms are not acceptable, return the product unopened at once.

---

©MONSANTO COMPANY 1991

MAP-3170

MONSANTO COMPANY  
AGRICULTURAL PRODUCTS  
ST. LOUIS, MISSOURI 63167

| SUBMISSION REVIEW RECORD  |                    | 1. REGISTRATION NUMBER                           |                          | CYCLE                 | 2. DATE RECEIVED    |                       |     |
|---|--------------------|--|--------------------------|-----------------------|---------------------|-----------------------|-----|
| G   |                    | 5 2 4 -  |                          |                       | MO                  | DAY                   | YR  |
| 3. 3C/D PUBLICATION NECESSARY   |                    | 4. PETITION NO.                                  |                          |                       | 5. RECEIVED PM TEAM |                       |     |
| <input type="checkbox"/> YES <input type="checkbox"/> NO                            |                    |  |                          |                       | MO                  | DAY                   | YR  |
| 6. METHOD OF SUPPORT  |                    | 7. PRODUCT MANAGER                               |                          | NO.                   | 8. PROJECTED RETURN |                       |     |
| <input type="checkbox"/> 2A <input type="checkbox"/> 2B <input type="checkbox"/> 2C |                    |  |                          |                       | MO                  | DAY                   | YR  |
| 9. DATE PULLED  | 10. DATE PUBLISHED | 11. ACTION TYPE                                  |                          | CODE                  | 12. OUTGOING DATE   |                       |     |
| 3/7/91  |                    | Control of Bermudagrass in<br>fall 500           |                          |                       | MO                  | DAY                   | YR  |
| REV. SEQ.   | REVIEW TYPE CODE   | REVIEW TYPE                                      | REVIEWER CODE (Initials) | SIGNATURE OF REVIEWER | COM. COMMENT CODE   | DATE REVIEW COMPLETED |     |
|   |                    |  |                          |                       |                     | MO                    | DAY |
|   | A                  | REVIEWABILITY TEAM                               |                          |                       |                     |                       |     |
|   | B                  | PRODUCT MANAGER TEAM EFFICACY REVIEW             |                          |                       |                     |                       |     |
|   | C                  | PRODUCT MANAGER TEAM HUMAN SAFETY REVIEW         |                          |                       |                     |                       |     |
|   | D                  | PRODUCT MANAGER TEAM ENVIRONMENTAL SAFETY REVIEW |                          |                       |                     |                       |     |
|   | E                  | PRODUCT MANAGER TEAM RESUBMISSION REVIEW         |                          |                       |                     |                       |     |
|   | F                  | PRODUCT MANAGER                                  |                          | UKW                   | VAC                 | 03                    | 07  |
|   | G                  | INTERAGENCY REFERRAL                             |                          |                       |                     |                       |     |
|   | H                  | COST-BENEFIT REVIEW                              |                          |                       |                     |                       |     |
|   | I                  | PUBLIC COMMENTS REVIEW                           |                          |                       |                     |                       |     |
|   | J                  | EEE BRANCH INSECTICIDE EFFICACY                  |                          |                       |                     |                       |     |
|   | K                  | EEE BRANCH HERBICIDE EFFICACY                    |                          |                       |                     |                       |     |
|   | L                  | EEE BRANCH FUNGICIDE EFFICACY                    |                          |                       |                     |                       |     |
|   | M                  | EEE BRANCH RODENTICIDE EFFICACY                  |                          |                       |                     |                       |     |
|   | N                  | EEE BRANCH DISINFECTANT EFFICACY                 |                          |                       |                     |                       |     |
|   | O                  | CHEMISTRY BRANCH RESIDUE CHEMISTRY               |                          |                       |                     |                       |     |
|   | P                  | EEE BRANCH ENVIRONMENTAL CHEMISTRY               |                          |                       |                     |                       |     |
|   | Q                  | TOXICOLOGY BRANCH HUMAN SAFETY                   |                          |                       |                     |                       |     |
|   | R                  | EEE BRANCH ENVIRONMENTAL SAFETY                  |                          |                       |                     |                       |     |
|   | S                  |  |                          |                       |                     |                       |     |
|   | T                  |  |                          |                       |                     |                       |     |
| PRODUCT MANAGER SIGNATURE   |                    |  | TYPE OF RESPONSE         |                       |                     | CODE                  |     |
|   |                    |  |                          |                       |                     |                       |     |



United States Environmental Protection Agency  
Office of Pesticide Programs (TS-767)  
Washington, DC 20460

Application for Pesticide: ☐ Registration  
☒ Amendment

OPP Identifier Number

140862

## Section I

1. Company/Product Number  
Monsanto/524-445

2. Date  
February 14, 1991

3. Product Manager  
Robert J. Taylor (25)

4. Proposed Classification  
☒ General ☐ Restricted

5. Name and Address of Applicant (include ZIP Code)

Monsanto Company  
Suite 1100  
700 14th Street, N.W.  
Washington, D.C. 20005

☐ Check if this is a new address6. Product Name  
MON 35085 Herbicide

## Section II - Amendment Information

1. Subject  
☐ Resubmission in response to Agency letter  
☐ Final printed label in response to Agency letter  
☒ Other (explain below)

Date of Letter  
2/14/91

Amendment to the Use Instructions: Supplemental label  
Control of bermudagrass in the fall

## Section III

1. Material This Product Will Be Packaged In

Child-Resistant Packaging  
☐ Yes ☒ No

Unit Packaging  
☒ Yes ☐ No

If "Yes,"  
Unit package wgt 24 lb. No. per container 2

Water-Soluble Packaging  
☐ Yes ☒ No

If "Yes,"  
Package weight No. per container

2. Type of Container  
☐ Metal  
☒ Plastic  
☐ Glass  
☐ Paper  
☐ Other (Specify)

3. Location of Net Contents Information  
☐ Label ☒ Container

4. Size(s) of Retail Container  
1 gal; 2.5 gal; 30 gal; 54 gal

5. Location of Label Directions  
☒ On Label  
☒ On material accompanying product

6. Manner in Which Label is Affixed To Product  
☐ Lithograph  
☐ Paper glued  
☐ Stenciled  
☒ Other (Specify) Vinyl glued

## Section IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application).

Name  
Kevin F. Cannon, Ph.D.

Title  
Manager, Agricultural Affairs

Telephone No. (Include Area Code)  
(202) 783-2460

2. Signature  
*Sheila A. Schuette*

3. Title  
Senior Registration Specialist

4. Typed Name  
Sheila A. Schuette, Ph.D.

5. Date Signed  
2/14/91

6. Date Application Received (Stamped)



# Paperwork Reduction Act Notice and Instructions

## Paperwork Reduction Act Notice

Public reporting burden for this collection of information is estimated to average of 0.85 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

## Instructions

### General

This form is to be used for all applications for new and amended registrations for pesticide products.

In order to process an application for new registration submitted on this form, the following material must accompany the application:

1. Offer to Pay Statement (EPA Form 8570-27, -28, -29). (If not exempted by 40 CFR 162.9-1(b).)
2. Confidential Statement of Formula (EPA Form 8570-4).
3. Five copies of draft labeling.
4. Three copies of any data submitted.

**Submission of Labeling** - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8 1/2 x 11 inch paper or as a mockup of the proposed label. If prepared as a mockup it should be constructed in such a way as to facilitate storage in an 8 1/2 x 11 inch file. Mockup labels significantly smaller than 8 1/2 x 11 inches should be mounted on 8 1/2 x 11 inch paper for submission.

**Submission of Data** - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

### Specific

Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Section I, III, and IV must be completed by the applicant. For applications submitted in connection with amended registration actions, Section I, II, and IV must be completed by the applicant.

**Block A** - Check the appropriate action for which you are submitting this form.

**Section I** - This Section must be completed for both Registration and Amended Registration actions.

1. **Company/Product Number** - Insert your company number, if one has been assigned. This number may have been assigned to you as a basic registrant, a distributor, or as an establishment. If application is for an amendment, insert the registration number of the product.
2. **Date** - Fill in the appropriate date.
3. **Product Manager** - If known, fill in the name and number of the Product Manager.
4. **Proposed Classification** - Specify the proposed classification for this product.
5. **Name and Address of Applicant** - The name of the firm or person and address shown in your application is the person or firm to whom registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration matters.

An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.

6. **Product Name** - Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.

### Amendment Information

**Section II** - This Section must be completed for all applications submitted in connection with Amended Registration.

1. **Subject of Amendment** - Check the appropriate block, and provide a brief explanation of the purpose(s) for the amendment, such as: "the addition of a site, pest, or crop"; "to change inert ingredient"; "general label revisions of precautionary statements," etc.

### Packaging and Container Information

**Section III** - This Section must be completed for all applications submitted in connection with New Registration.

1. **Type of Packaging** - Check the appropriate block if your product will be packaged in the indicated packaging types. Indicate the size of the individual packets and number per retail container.
2. **Type of Retail Container** - Indicate type of container in which product will be marketed.
3. **Location of Net Contents** - Specify the net contents of all retail containers for your product.
4. **Size(s) of Retail Container** - Specify the net contents of all retail containers for your product.
5. **Location of Use Directions** - Indicate the location of the use directions for your product.
6. **Manner in which label is affixed to product** - Indicate the method product labeling is attached to retail container.

### Contact Point

**Section IV** - This Section must be completed for all Registration and Amended Registration applications.

- 1-5. Self-explanatory.
6. EPA Use Only.

CERTIFICATION WITH RESPECT TO CITATION OF DATA

EPA File Symbol/Reg. No. 524-445 Date of Application February 14, 1991

Name of Product MON-35085 Herbicide

Applicant's Name and Address Monsanto Company

Suite 1100

700 14th Street, N.W.

Washington, D.C. 20005

1. This application is supported by all data submitted or cited in the application. In addition, if cite-all options are indicated, this application is supported by all data in the Agency's files that concern the properties or effects of this product or of any other product that is identical or substantially similar, and that is one of the types of data that would be required to be submitted if this application sought the initial registration of a product of identical or similar composition and intended uses under the data requirements in effect on the date of approval of this application.

2. I certify that, for each study cited in support of this application for registration that is an exclusive use study, I have obtained the written permission of the original data submitter to cite that study.

3. I certify that, for each study cited in support of this application for registration that is not an exclusive use study:

I have obtained the written permission of the original data submitter to cite that study; or

I have notified in writing the companies who have submitted data I have cited to support those applications and have offered to: (a) Pay compensation for those data in accordance with section 3(c)(1)(D) and 3(c)(2)(D) of the Federal Insecticide, Fungicide and Rodenticide Act; and (b) Commence negotiations to determine which data are subject to the compensation requirements of FIFRA and the amount and terms of compensation due, if any. The companies I have notified are: (Check one)

☐ All companies listed on the Pesticide Data Submitters List for all active ingredients contained in my product (Cite-all method or cite-all option under Selective Method). (Also sign the General Offer to Pay Statement below).

☒ Monsanto Company has submitted the studies which I have cited (Selective Method).

Date February 14, 1991

Signature Shelia A. Schmitt 2/14/91

Title Senior Registration Specialist

General Offer to Pay: I hereby offer and agree to pay compensation to other persons, with regard to the approval of this application, to the extent required by FIFRA sec. 3(c)(1)(D) and 3(c)(2)(D).

Date February 14, 1991

Signature Shelia A. Schmitt 2/14/91

Title Senior Registration Specialist 257

Dr. Sheila A. Schuette  
Monsanto Company  
700 14th Street NW., Suite 1100  
Washington, DC 20005

Dear Dr. Schuette:

Subject: MON-35085 Herbicide (Tank-Mix with Lasso Micro-Tech  
in Corn and Soybeans)  
EPA Registration No. 524-445  
Your Application Dated February 14, 1991

The labeling referred to above, submitted in connection with  
registration under the Federal Insecticide, Fungicide, and Rodenticide  
Act, as amended, is acceptable. Please submit five (5) copies of your  
final printed labeling before you release the product for shipment. A  
stamped copy of labeling is enclosed for your records.

Sincerely yours,

Robert J. Taylor  
Product Manager (25)  
Fungicide-Herbicide Branch  
Registration Division (H7505C)

Enclosure

54426:I:Walters:L25-1:KEVRIC:03/04/91:13/08/91:TK:DD

CONCURRENCES

|         |               |  |  |  |  |  |  |  |
|---------|---------------|--|--|--|--|--|--|--|
| SYMBOL  | H2505C        |  |  |  |  |  |  |  |
| SURNAME | V. K. Walters |  |  |  |  |  |  |  |
| DATE    | 3/18/91       |  |  |  |  |  |  |  |

253

# Monsanto

Monsanto Company  
Suite 1100  
700 14th Street, N.W.  
Washington, D.C. 20005

February 14, 1991

Document Processing Center (Amend)  
Office of Pesticide Programs - H7504C  
U.S. Environmental Protection Agency  
1921 Jefferson Davis Highway  
Crystal Mall #2, Room 226A  
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor  
Product Manager (25)

Subject: **MON-35085 Herbicide (EPA Reg. No. 524-445)**  
**Supplemental Label:** Conservation Tillage, Minimum Tillage and  
No-Till Systems. Annual Weed Control in Corn and Soybeans. Tank  
Mixtures with Lasso® Micro-Tech® Herbicide.

Dear Sir:

Enclosed for Agency review and approval are five (5) copies of a supplemental MON-35085 herbicide label. This label is intended to provide recommendations for control of annual weeds in corn and soybeans for minimum tillage systems. This supplemental label specifically provides more detailed mixing instructions and rate recommendations for tank mixtures.

An Application for Pesticide Amendment and Certification with Respect to Citation of Data and General Offer to Pay are enclosed.

If you have any questions regarding this request, please contact Dr. Kevin Cannon or me.

Sincerely,



Sheila A. Schuette, Ph.D.  
Senior Registration Specialist  
(314) 694-7248

| SUBMISSION REVIEW RECORD  |  |                          |                       | 1. REGISTRATION NUMBER |     |                       |  | CYCLE               | 2. DATE RECEIVED    |  |  |
|---|--|--------------------------|-----------------------|------------------------|-----|-----------------------|--|---------------------|---------------------|--|--|
| 3. 3C10 PUBLICATION NECESSARY<br><input type="checkbox"/> YES <input type="checkbox"/> NO                   |  |                          |                       | 4. PETITION NO.        |     |                       |  | 5. RECEIVED PM TEAM |                     |  |  |
| 6. METHOD OF SUPPORT<br><input type="checkbox"/> 2A <input type="checkbox"/> 2B <input type="checkbox"/> 2C |  |                          |                       | 7. PRODUCT MANAGER     |     |                       |  | NO.                 | 8. PROJECTED RETURN |  |  |
| 9. DATE PULLED  |  | 10. DATE PUBLISHED       |                       | 11. ACTION TYPE        |     |                       |  | CODE                | 12. OUTGOING DATE   |  |  |
| REV. SEC.   | REVIEW TYPE                                      | REVIEWER CODE (Initials) | SIGNATURE OF REVIEWER | COM. CODE              |     | DATE REVIEW COMPLETED |  |                     |                     |  |  |
|   |  |                          |                       | MO                     | DAY | YR                    |  |                     |                     |  |  |
| A   | REVIEWABILITY TEAM                               |                          |                       |                        |     |                       |  |                     |                     |  |  |
| B   | PRODUCT MANAGER TEAM EFFICACY REVIEW             |                          |                       |                        |     |                       |  |                     |                     |  |  |
| C   | PRODUCT MANAGER TEAM HUMAN SAFETY REVIEW         |                          |                       |                        |     |                       |  |                     |                     |  |  |
| D   | PRODUCT MANAGER TEAM ENVIRONMENTAL SAFETY REVIEW |                          |                       |                        |     |                       |  |                     |                     |  |  |
| E   | PRODUCT MANAGER TEAM RESUBMISSION REVIEW         |                          |                       |                        |     |                       |  |                     |                     |  |  |
| F   | PRODUCT MANAGER                                  |                          |                       |                        |     |                       |  |                     |                     |  |  |
| G   | INTERAGENCY REFERRAL                             |                          |                       |                        |     |                       |  |                     |                     |  |  |
| H   | COST-BENEFIT REVIEW                              |                          |                       |                        |     |                       |  |                     |                     |  |  |
| I   | PUBLIC COMMENTS REVIEW                           |                          |                       |                        |     |                       |  |                     |                     |  |  |
| J   | EEE BRANCH INSECTICIDE EFFICACY                  |                          |                       |                        |     |                       |  |                     |                     |  |  |
| K   | EEE BRANCH HERBICIDE EFFICACY                    |                          |                       |                        |     |                       |  |                     |                     |  |  |
| L   | EEE BRANCH FUNGICIDE EFFICACY                    |                          |                       |                        |     |                       |  |                     |                     |  |  |
| M   | EEE BRANCH RODENTICIDE EFFICACY                  |                          |                       |                        |     |                       |  |                     |                     |  |  |
| N   | EEE BRANCH DISINFECTANT EFFICACY                 |                          |                       |                        |     |                       |  |                     |                     |  |  |
| O   | CHEMISTRY BRANCH RESIDUE CHEMISTRY               |                          |                       |                        |     |                       |  |                     |                     |  |  |
| P   | EEE BRANCH ENVIRONMENTAL CHEMISTRY               |                          |                       |                        |     |                       |  |                     |                     |  |  |
| Q   | TOXICOLOGY BRANCH HUMAN SAFETY                   |                          |                       |                        |     |                       |  |                     |                     |  |  |
| R   | EEE BRANCH ENVIRONMENTAL SAFETY                  |                          |                       |                        |     |                       |  |                     |                     |  |  |
| S   |  |                          |                       |                        |     |                       |  |                     |                     |  |  |
| T   |  |                          |                       |                        |     |                       |  |                     |                     |  |  |
| PRODUCT MANAGER SIGNATURE   |  |                          |                       | TYPE OF RESPONSE       |     |                       |  | CODE                |                     |  |  |
|   |  |                          |                       |                        |     |                       |  |                     |                     |  |  |

ACCEPTED

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticide  
registered under  
EPA Reg. No. 524-445

### SUPPLEMENTAL LABELING

READ AND FOLLOW THE ENTIRE LABEL FOR MON-35085 HERBICIDE BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labeling refers to the label for MON-35085 herbicide and this supplement.

**MON-35085**  
**Herbicide by Monsanto**

EPA Reg. No. 524-445

---

CONSERVATION TILLAGE, MINIMUM TILLAGE AND NO-TILL SYSTEMS.  
ANNUAL WEED CONTROL IN CORN AND SOYBEANS.  
TANK MIXTURES WITH LASSO® MICRO-TECH® HERBICIDE.

---

Keep out of reach of children.

#### WARNING!

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

---

®Lasso and MICRO-TECH are registered trademarks of Monsanto Company.

Lasso MICRO-TECH herbicide is a Restricted Use pesticide.

---

#### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with the labeling.

This supplemental labeling and the label booklet for MON-35085 must be in the possession of the user at the time of herbicide application.

AVOID CONTACT WITH FOLIAGE, GREEN STEMS, OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, SINCE SEVERE INJURY OR DESTRUCTION MAY RESULT.

See "GENERAL INFORMATION", "APPLICATION EQUIPMENT AND TECHNIQUES" and "CROPPING SYSTEMS" sections of the label booklet for MON-35085 for essential product information.

## RECOMMENDATIONS

When applied as recommended under the conditions described, the tank mixtures listed in this supplemental labeling control many emerged weeds, and give preemergence control of many annual weeds where corn or soybeans will be planted directly into previous crop residues.

Refer to specific product labels for application rates, crop rotation restrictions and cautionary statements for Lasso® MICRO-TECH® herbicide and all products used in these tank mixtures. For mixing instructions, see the "Mixing, Additives and Application Instructions" section of the label booklet for Roundup® herbicide.

Apply these tank mixtures in 10 to 20 gallons of water or 10 to 60 gallons of nitrogen solution per acre before, during or after planting. Do not apply these mixtures after crop emergence.

When tank mixing with these residual herbicides:

1. Add an agriculturally approved nonionic surfactant at 0.5 percent by volume of spray solution, and
2. Add dry ammonium sulfate at 1 to 2 percent by weight (8.5 to 17 pounds per 100 gallons of water).

NOTE: When using these tank mixtures, do not exceed 4 quarts of this product per acre.

For residual control, this product may be tank-mixed with the following herbicides or combination of herbicides:

### CORN HERBICIDES

|                    |          |
|--------------------|----------|
| LASSO® MICRO-TECH® | ATRAZINE |
| CYANAZINE          | PROWL™   |
| SIMAZINE           |          |

### SOYBEAN HERBICIDES

|                    |          |
|--------------------|----------|
| LASSO® MICRO-TECH® | CANOPY™  |
| COMMAND™           | GEMINI™  |
| LEXONE™            | LINURON  |
| LOROX™ PLUS        | PREVIEW™ |
| SCEPTER™           | SENCOR™  |

### RATE RECOMMENDATIONS

1. Apply 2 pints of this product per acre for difficult to control weeds such as fall panicum, barnyardgrass,

shattercane and broadleaf signalgrass up to 2 inches tall, and Pennsylvania smartweed up to 6 inches tall.

2. Apply 1 to 1.5 pints of this product for other labeled annual weeds less than 6 inches tall, and 2 to 3 pints when weeds are greater than 6 inches tall.

For a complete list of annual weeds controlled, see the "Weeds Controlled" section in the label booklet for MON-35085 herbicide.

---

Read the "LIMIT OF WARRANTY AND LIABILITY" in the label booklet for MON-35085 before using this product. Those terms apply to this supplemental labeling and if those terms are not acceptable, return the product unopened at once.

---

\*Canopy, Gemini, Lexone, Lorox Plus and Preview are trademarks of E.I. duPont de Nemours and Company.

\*Sencor is a trademark of Bayer AG.

\*Prowl and Scepter are trademarks of American Cyanamid Company.

\*Command is a trademark of FMC Corporation.

©MONSANTO COMPANY 1991

MAP-3176

MONSANTO COMPANY  
AGRICULTURAL PRODUCTS  
ST. LOUIS, MISSOURI 63167





United States Environmental Protection Agency  
Office of Pesticide Programs (TS-767)  
Washington, DC 20460

Application for Pesticide: ☐ Registration  
☒ Amendment

OPP Identifier Number

140865

## Section I

|  |                              |   |   |
|--|------------------------------|---|---|
| 1. Company/Product Number<br>Monsanto/524-445  | 2. Date<br>February 14, 1991 | 3. Product Manager<br>Robert J. Taylor (25) | 4. Proposed Classification<br><input checked="" type="checkbox"/> General <input type="checkbox"/> Restricted |
| 5. Name and Address of Applicant (include ZIP Code)<br><br>Monsanto Company<br>Suite 1100<br>700 14th Street, N.W.<br>Washington, D.C. 20005 |                              |   |   |
| <input type="checkbox"/> Check if this is a new address  |                              |   |   |
| 6. Product Name<br>MON 35085 Herbicide   |                              |   |   |

## Section II - Amendment Information

|  |                           |
|--|---------------------------|
| 1. Subject<br><input type="checkbox"/> Resubmission in response to Agency letter<br><input type="checkbox"/> Final printed label in response to Agency letter<br><input checked="" type="checkbox"/> Other (explain below) | Date of Letter<br>2/14/91 |
| Amendment to the Use Instructions: Supplemental label<br>Conservation Tillage, minimum Tillage, and<br>No-till systems. Annual Weed control in Corn<br>and soybeans tank mixtures with Lasso®<br>Micro-Tech® herbicide.    |                           |

## Section III

|   |  |   |   |
|---|--|---|---|
| 1. Material This Product Will Be Packaged In  |  | 2. Type of Container  |   |
| Child-Resistant Packaging<br><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  | Unit Packaging<br><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No<br>If "Yes,"<br>Unit package wgt No. per container<br>24 lb. 2 | Water-Soluble Packaging<br><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No<br>If "Yes,"<br>Package weight No. per container   | <input type="checkbox"/> Metal<br><input checked="" type="checkbox"/> Plastic<br><input type="checkbox"/> Glass<br><input type="checkbox"/> Paper<br><input type="checkbox"/> Other (Specify) |
| 3. Location of Net Contents Information<br><input type="checkbox"/> Label <input checked="" type="checkbox"/> Container                                 |  | 4. Size(s) of Retail Container<br>1 gal; 2.5 gal; 30 gal; 54 gal  |   |
| 5. Location of Label Directions<br><input checked="" type="checkbox"/> On Label<br><input checked="" type="checkbox"/> On material accompanying product |  | 6. Manner in Which Label is Affixed To Product<br><input type="checkbox"/> Lithograph <input checked="" type="checkbox"/> Other (Specify)<br><input type="checkbox"/> Paper glued<br><input type="checkbox"/> Stenciled Vinyl glued |   |

## Section IV

|  |  |   |  |
|--|--|---|--|
| 1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary to process this application).   |  |   |  |
| Name<br>Kevin F. Cannon, Ph.D.   |  |   |  |
| Title<br>Manager, Agricultural Affairs   |  | Telephone No. (Include Area Code)<br>(202) 783-2460 |  |
| 6. Date Application Received (Stamped)   |  |   |  |
| <p><b>Certification</b></p> <p>I certify that the statements I have made on this form and all attachments thereto are true, accurate, and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.</p> |  |   |  |
| 2. Signature<br>   |  | 3. Title<br>Senior Registration Specialist          |  |
| 4. Typed Name<br>Sheila A. Schuette, Ph.D.   |  | 5. Date Signed<br>2/14/91                           |  |

# Paperwork Reduction Act Notice and Instructions

## Paperwork Reduction Act Notice

Public reporting burden for this collection of information is estimated to average of 0.85 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

## Instructions

### General

This form is to be used for all applications for new and amended registrations for pesticide products.

In order to process an application for new registration submitted on this form, the following material must accompany the application:

1. Offer to Pay Statement (EPA Form 8570-27, -28, -29). (If not exempted by 40 CFR 162.9-1(b).)
2. Confidential Statement of Formula (EPA Form 8570-4).
3. Five copies of draft labeling.
4. Three copies of any data submitted.

**Submission of Labeling** - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8 1/2 x 11 inch paper or as a mockup of the proposed label. If prepared as a mockup it should be constructed in such a way as to facilitate storage in an 8 1/2 x 11 inch file. Mockup labels significantly smaller than 8 1/2 x 11 inches should be mounted on 8 1/2 x 11 inch paper for submission.

**Submission of Data** - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

### Specific

Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Section I, III, and IV must be completed by the applicant. For applications submitted in connection with amended registration actions, Section I, II, and IV must be completed by the applicant.

**Block A** - Check the appropriate action for which you are submitting this form.

**Section I** - This Section must be completed for both Registration and Amended Registration actions.

1. **Company/Product Number** - Insert your company number, if one has been assigned. This number may have been assigned to you as a basic registrant, a distributor, or as an establishment. If application is for an amendment, insert the registration number of the product.
2. **Date** - Fill in the appropriate date.
3. **Product Manager** - If known, fill in the name and number of the Product Manager.
4. **Proposed Classification** - Specify the proposed classification for this product.
5. **Name and Address of Applicant** - The name of the firm or person and address shown in your application is the person or firm to whom registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration matters.

An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.

6. **Product Name** - Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.

### Amendment Information

**Section II** - This Section must be completed for all applications submitted in connection with Amended Registration.

1. **Subject of Amendment** - Check the appropriate block, and provide a brief explanation of the purpose(s) for the amendment, such as: "the addition of a site, pest, or crop"; "to change inert ingredient"; "general label revisions of precautionary statements," etc.

### Packaging and Container Information

**Section III** - This Section must be completed for all applications submitted in connection with New Registration.

1. **Type of Packaging** - Check the appropriate block if your product will be packaged in the indicated packaging types. Indicate the size of the individual packets and number per retail container.
2. **Type of Retail Container** - Indicate type of container in which product will be marketed.
3. **Location of Net Contents** - Specify the net contents of all retail containers for your product.
4. **Size(s) of Retail Container** - Specify the net contents of all retail containers for your product.
5. **Location of Use Directions** - Indicate the location of the use directions for your product.
6. **Manner in which label is affixed to product** - Indicate the method product labeling is attached to retail container.

### Contact Point

**Section IV** - This Section must be completed for all Registration and Amended Registration applications.

- 1-5. Self-explanatory.
6. EPA Use Only.

# CERTIFICATION WITH RESPECT TO CITATION OF DATA

EPA File Symbol/Reg. No. 524-445 Date of Application February 14, 1991

Name of Product MON-35085 Herbicide

Applicant's Name and Address Monsanto Company

Suite 1100

700 14th Street, N.W.

Washington, D.C. 20005

1. This application is supported by all data submitted or cited in the application. In addition, if cite-all options are indicated, this application is supported by all data in the Agency's files that concern the properties or effects of this product or of any other product that is identical or substantially similar, and that is one of the types of data that would be required to be submitted if this application sought the initial registration of a product of identical or similar composition and intended uses under the data requirements in effect on the date of approval of this application.

2. I certify that, for each study cited in support of this application for registration that is an exclusive use study, I have obtained the written permission of the original data submitter to cite that study.

3. I certify that, for each study cited in support of this application for registration that is not an exclusive use study:

I have obtained the written permission of the original data submitter to cite that study; or

I have notified in writing the companies who have submitted data I have cited to support those applications and have offered to: (a) Pay compensation for those data in accordance with section 3(c)(1)(D) and 3(c)(2)(D) of the Federal Insecticide, Fungicide and Rodenticide Act; and (b) Commence negotiations to determine which data are subject to the compensation requirements of FIFRA and the amount and terms of compensation due, if any. The companies I have notified are: (Check one)

☐ All companies listed on the Pesticide Data Submitters List for all active ingredients contained in my product (Cite-all method or cite-all option under Selective Method). (Also sign the General Offer to Pay Statement below).

☒ Monsanto Company has submitted the studies which I have cited (Selective Method).

Date February 14, 1991

Signature Shirley A. Schmidt 2/14/91

Title Senior Registration Specialist

General Offer to Pay: I hereby offer and agree to pay compensation to other persons, with regard to the approval of this application, to the extent required by FIFRA sec. 3(c)(1)(D) and 3(c)(2)(D).

Date February 14, 1991

Signature Shirley A. Schmidt 2/14/91

Title Senior Registration Specialist 261

18 89

Mr. Roy G. Danhaus  
Monsanto Company  
700 14th Street NW., Suite 1100  
Washington, DC 20005

Dear Mr. Danhaus:

Subject: MON-35085 Herbicide (Lawn and Homeowner Name and Use  
Directions)  
EPA Registration No. 524-445  
Your Application Dated February 20, 1991

The additional brand name "MON 35085 Super Concentrate Grass and  
Weed Killer" is acceptable and our records have been modified accordingly.

The amendment referred to above, submitted in connection with  
registration under section 3(c)(7)(A) of the Federal Insecticide,  
Fungicide, and Rodenticide Act (FIFRA), is acceptable provided that you:

1. Submit/cite all data required for registration/reregistration  
of your product under FIFRA section 3(c)(5) or 4(a) when the  
Agency requires all registrants of similar products to submit  
such data.
2. Make the labeling changes listed below before you release the  
product for shipment bearing the amended labeling:
  - The EPA Registration No. 524-445 must appear on both the  
container label and the pamphlet.
3. Submit five (5) copies of your final printed labeling before you  
release the product for shipment.

54426:I:CR-44:Walters:L25-1:KEVRIC:03/04/91:13/08/91:TK

CONCURRENCES

|         |  |  |  |  |  |  |  |     |
|---------|--|--|--|--|--|--|--|-----|
| SYMBOL  |  |  |  |  |  |  |  |     |
| SURNAME |  |  |  |  |  |  |  |     |
| DATE    |  |  |  |  |  |  |  | 262 |

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product bearing the amended labeling constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Sincerely yours,

Robert J. Taylor  
Product Manager (25)  
Fungicide-Herbicide Branch  
Registration Division (H7505C)

Enclosure

263

# Rodentup

MAKES  
UP TO  
21 GALLONS

Super Concentrate

by Monsanto

## Grass & Weed Killer

- COVERS UP TO 6300 SQUARE FEET
- KILLS UNWEEDED LABELLED GRASSES AND WEEDS SYSTEMICALLY - ROOTS AND ALL
- DOES NOT HAVE SOIL ACTIVITY
- SUITABLE FOR USE AROUND FLOWER BEDS, TREES, SHRUBS, FENCES AND DRIVEWAYS
- USE TO PREPARE GARDEN SITES AND RENOVATE LAWNS

Read the entire label before using this product.  
Use only according to label instructions.

NOTICE: USER ASSUMES ALL RESPONSIBILITY FOR  
SAFETY AND USE HEREIN ACCORDANCE WITH DIREC-  
TIONS. IF THESE TERMS ARE NOT ACCEPTABLE,  
RETURN AT ONCE UNREFILED.

#### ACTIVE INGREDIENT:

\*Glyphosate, N-(phosphonomethyl)glycine  
as the form of its diisopropylamide salt ... 44.0%  
INERT INGREDIENTS ..... 56.0%  
100.0%

Keep out of reach of children.  
**WARNING!** READ OPERATIONS  
ON BACK PANEL.

NET 32 fl. oz. (1 qt)

897.17-000.1A1.4

Change to: MON 35085

#### Add:

- 1½ - 2½ fl oz per gallon  
of water

#### Change to:

- Kills labeled annual and  
perennial grasses, weeds and  
sedges

#### Add:

- Systemic Action-Kills Roots  
and All

#### Move to:

**ACCEPTED**

MAR 18 1991

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticide  
registered under  
EPA Reg. No. 524-4405

264-

Carefully read and follow detailed instructions in pamphlet.

#### PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Keep out of reach of children.

**WARNING!** CAUSES EYE IRRITATION. HARMFUL IF SWALLOWED OR INHALED. MAY CAUSE SKIN IRRITATION. Do not get in eyes, on skin or on clothing. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling.

**FIRST AID:** IF IN EYES, immediately flush with plenty of water for at least 15 minutes. Get medical attention.

IF ON SKIN, immediately flush with plenty of water. Remove contaminated clothing. Wash clothing before reuse.

IF SWALLOWED, this product will cause gastrointestinal tract irritation. Immediately dilute by swallowing water or milk. Get medical attention.

IF INHALED, remove individual to fresh air. Get medical attention if breathing difficulty develops.

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4800.

#### Environmental Hazards

Do not apply directly to water or wetland (swamp, bogs, marshes or potholes). Do not contaminate water when disposing of equipment washwaters.

#### Physical or Chemical Hazards

Spray solutions of this product should be mixed, stored and applied only in stainless steel, aluminum, fiberglass, plastic and plastic-lined steel containers. DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. (See additional Precautions inside Pamphlet.)

#### Storage and Disposal

Do not contaminate water, food, feed or seed by storage or disposal.

**STORAGE:** Store this product in its original container and in a secured storage area. In case of SPILL or LEAK, soak up with paper towels and discard in trash.

**DISPOSAL:** To dispose of unused product, securely wrap original container in several layers of newspaper and discard in trash.

Empty container retains vapor and product residue. Observe all labeled safeguards until container is discarded.

Do not reuse container. Rinse thoroughly before discarding in trash.

This product is protected by U.S. Patents No. 3,799,758, No. 4,405,531 and No. 4,840,650. Other patents pending. No license granted under any non-U.S. patents.

© Monsanto Company

© MONSANTO COMPANY 1990

MONSANTO COMPANY - AGRICULTURAL PRODUCTS - ST. LOUIS, MISSOURI 63167 U.S.A.

EPA Est. 524-LA-1

EPA Reg. No. 524-304-AA

297.17-000.141.3

Change to:

#### WARNING!

CAUSES SUBSTANTIAL BUT TEMPORARY EYE INJURY. HARMFUL IF INHALED.

Do not get in eyes or breathe spray mist or get in or on clothing.

Wear goggles, face shield or safety glasses.

Wash thoroughly with soap and water after handling.

Remove contaminated clothing and wash before reuse.

**FIRST AID:** IF IN EYES, hold eyelids open and flush with plenty of water. Get medical attention.

IF INHALED, remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

IF SWALLOWED, drink promptly a large quantity of milk, egg whites, or gelatin solution. If these are not available drink large quantities of water. Get medical attention.

Add: Picture of telephone receiver

Change to: 91

xxx

265

Change to: MON 35085

KEEP PEOPLE AND PETS OFF TREATED AREAS UNTIL SPRAY SOLUTION HAS DRIED.

**DOMESTIC ANIMALS:** This product is considered to be relatively nontoxic to dogs and other domestic animals. However, ingestion of this product or large amounts of freshly sprayed vegetation may result in temporary gastrointestinal irritation (vomiting, diarrhea, colic, etc.). If such symptoms are observed, provide the animal with plenty of fluids to prevent dehydration. Call a veterinarian if symptoms persist for more than 24 hours.

#### ADDITIONAL PRECAUTIONS

DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNPAINTED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lit cigarette or other ignition source.

#### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

Roundup is a nonselective herbicide that is diluted and applied to the foliage of actively growing weeds as a spray or broadcast application. It is absorbed by the leaves and

PROOF  
OF PURCHASE

265



Add: Picture of telephone receiver

moves throughout the stem and roots to control the entire plant. Visible symptoms may require a week or more to appear, with burndown usually occurring in 2 to 4 weeks. Symptoms are a gradual wilting and yellowing of the sprayed plant followed by deterioration of both shoots and roots. This product has no herbicidal activity in the soil and will not wash or leach to affect nearby vegetation.

This product controls many weeds around buildings, vacant lots, storage and recreational areas, gravel or ground bark mulch, shade trees, ornamentals and shrubs; along fences, sidewalks, driveways and patios; and prior to planting turfgrasses, shrubs, flower beds or vegetables listed on the label. When used as a spot treatment in lawns, all vegetation contacted will be damaged.

THIS PRODUCT CAN INJURE OR DESTROY ALL VEGETATION CONTACTED. AVOID SPRAY DRIFT CONTACT WITH DESIRABLE LAWN GRASSES, FLOWERS, VEGETABLES, SHRUBS OR TREES. DO NOT CONTACT GREEN BARK OF TREES OR SHRUBS. IF DESIRABLE VEGETATION IS CONTACTED, WASH IMMEDIATELY WITH WATER.

For more product information, call toll-free 1-800-225-2883.

#### Storage and Disposal

Do not contaminate water, food, feed or seed by storage or disposal.

##### **STORAGE:**

Store the product in its original container and in a secured storage area.

In case of SPILL or LEAK, soak up with paper towels and discard in trash.

Change to: MON 35085

**DISPOSAL:**

To dispose of unused product, securely wrap original container in several layers of newspaper and place in trash.

Empty container retains vapor and product residue. Observe all labeled safeguards until container is discarded.

Do not reuse container. Rinse thoroughly before discarding in trash.

**WEEDS CONTROLLED**

When applied as recommended under the conditions described, Roundup controls many common weeds including the following:

Annuaals

Barnyardgrass  
Bluegrass, annual  
Chickweed  
Crabgrass  
Foxtail  
Lambquarters, common  
Lettuce, prickly  
Mustard, hairy

Perennialrye, field  
Pigweed, redroot, smooth  
Ragweed, common  
Ryegrass, annual  
Sundew, field  
Shepherdspurse  
Sowthistle

Perennials

Bahiagrass  
Bermudagrass  
Bindweed, field  
Bluegrass, Kentucky  
Bromegrass, smooth  
Clover, red, white  
Dallisgrass  
Dandelion  
Fescue, species  
Fescue, tall

Johnsongrass  
Nutsedge, purple, yellow  
Orchardgrass  
Quackgrass  
Ryegrass, perennial  
Tritic, Canada  
Timothy  
Vaseygrass

#### Brush

|            |                  |
|------------|------------------|
| Alder      | Poison Ivy       |
| Blackberry | Poison Oak       |
| Cherry     | Raspberry        |
| Cowberry   | Rose, multiflora |
| Elderberry | Sumac            |
| Hopbush    | Trumpet creeper  |
| Kudzu      | Willow           |
| Oak        |                  |

#### MIXING AND SPRAYING

Do not apply this product through any type of irrigation system.

**Hand-held Sprayers** - Add 1-1/2 to 2-1/2 fluid ounces (3 to 5 tbsp.) of this product to 1 gallon of clean water. Use the higher recommended rate for control of listed perennials and brush. Use pump-up-type or hand-trigger-type sprayers. **USE OF HOSE-END SPRAYERS OR SPRINKLER-TYPE DEVICES MAY RESULT IN POOR AND/OR ERRATIC RESULTS.**

Ensure uniform and complete spray coverage, but do not spray plants to the point that the spray solution runs off. Use a coarse spray. Do not spray during windy conditions, as spray drift may cause damage to any vegetation contacted.

#### WHEN TO APPLY

Apply to vigorously growing plants. Apply to annual weeds anytime after emergence. For best results, apply to perennial weeds after seedheads, flowers or berries appear. On woody brush or trees, spray after leaves have fully expanded. Applications made at less than the recommended stage of growth may result in reduced control. After mowing, clipping or tilling, allow weeds to

regrow to the recommended growth stage before spraying this product.

Rainfall or watering within 8 hours after application can wash the product off plant foliage which may require retreatment. Delay mowing, clipping, tilling, planting or sodding of treated areas for at least 7 days after application. This allows time for this product to move within the plant for most effective results. **SINCE THIS PRODUCT DOES NOT WORK IN SOIL, RETREATMENTS WILL BE NECESSARY TO CONTROL NEW WEEDS EMERGING FROM SEED.**

One application will control most weeds listed. Symptoms on certain tough perennial weeds and woody brush and tree species may be slow to develop. If control is not achieved within 4 weeks, allow time for the sprayed weeds to regrow and make a second application. In some cases, control of woody brush and trees treated in the fall may not be fully apparent until the following season.

#### LAWN RENOVATION

Best results are obtained when at least one mowing is skipped prior to treatment. This provides more leaf surface to intercept the spray. For areas where renovation and reseeding is desired, thorough spray coverage of all existing vegetation is necessary. Delay planting or sodding of treated areas for at least 7 days after application.

#### ORNAMENTALS

Any ornamental species may be planted in treated areas 7 days or more after application. Apply this product as recommended to control undesirable vegetation growing around ornamentals, trees or shrubs. Avoid spray contact with any desirable plants. To avoid injury on desirable plants, prevent spray or drift contact with foliage, stems or green parts. Do not spray into, or over the top of, growing ornamentals.

270-

Add: Picture of telephone receiver

#### TREES (Apple, Citrus, Nut, Pear) AND GRAPEVINES

Apply this product to control undesirable plants growing around these trees and vines. Spray contact, other than with mature bark of the main trunk, can injure the tree or vine. Allow 21 days between application and harvest.

#### BERRIES, SMALL FRUIT & VEGETABLE GARDENS

The following vegetables may be planted in treated areas 7 days or more after application: asparagus, beans, beet greens, beets, blackberry, blueberry, boysenberry, broccoli, cabbage, carrot, cauliflower, celery, chichory, corn, cranberry, cucumber, currant, dewberry, elderberry, eggplant, garlic, gourds, gooseberry, horseradish, huckleberry, Jerusalem artichoke, kale, lemons, lettuce, loganberry, melons, mustard greens, okra, oregano, onion, parsnips, peas, peppers, Irish and sweet potatoes, pumpkin, radish, raspberry (black, red), rutabagas, spinach, squash (summer, winter), strawberry, tomato, tomato, watercress, watermelon and turnips. In the treated area, do not plant any vegetables not listed on this label for one year following application. Do not apply this product in or around growing vegetables.

\*Use on tomatoes in restricted to direct seeded tomatoes only.

#### CLEANING EQUIPMENT

Triple-rinse spray tank and flush all sprayer components with water to remove residues of this product. After thorough cleaning, equipment may be used to apply other products.

In case of an emergency involving this product.  
Call Collect, day or night, (314) 694-4000.

Change to: MON 35085

Change to: 1991

## **Roundup, Super Concentrate**

Nonselective herbicide for lawn and garden use.  
Avoid spray on desirable plants as severe injury or  
destruction may result.

Read "NOTICE" in next paragraph before buying or  
using. If terms are not acceptable, return at once  
unopened.

NOTICE: BUYER ASSUMES ALL RESPONSIBILITY FOR SAFETY AND USE NOT IN ACCORDANCE WITH DIRECTIONS IN THIS LABELING.

REFORMULATION OR REPACKAGING  
IS PROHIBITED.

**ACTIVE INGREDIENT:**

Glyphosate, N-(phosphonomethyl)glycine,  
in the form of its isopropylamine salt. . . . 41.0%

**INERT INGREDIENTS:** . . . . . 59.0%  
100.0%

\*Contains 480 grams per litre or 4 pounds per U.S.  
gallon of glyphosate, N-(phosphonomethyl)glycine,  
in the form of its isopropylamine salt.

This product is protected by U.S. Patents No.  
3,799,758, No. 4,405,531 and No. 4,840,650. Other  
patents pending. No license granted under any non-  
U.S. patent(s).

© MONSANTO COMPANY 1990

MONSANTO COMPANY  
AGRICULTURAL PRODUCTS  
ST. LOUIS, MISSOURI 63167 U.S.A.



27

Carefully read and follow detailed instructions in pamphlet.

#### PRECAUTIONARY STATEMENTS

##### Hazards to Humans and Domestic Animals

Keep out of reach of children.

**WARNING!** CAUSES EYE IRRITATION. HARMFUL IF SWALLOWED OR INHALED. MAY CAUSE SKIN IRRITATION. Do not get in eyes, on skin or on clothing. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling.

**FIRST AID:** IF IN EYES, immediately flush with plenty of water for at least 15 minutes. Get medical attention.

IF ON SKIN, immediately flush with plenty of water. Remove contaminated clothing. Wash clothing before reuse.

IF SWALLOWED, this product will cause gastrointestinal tract irritation. Immediately dilute by swallowing water or milk. Get medical attention.

IF INHALED, remove individual to fresh air. Get medical attention if breathing difficulty develops.

In case of an emergency involving this product, Call Collect, day or night.  
(314) 694-4000.

##### Environmental Hazards

Do not apply directly to water or wetland (swamps, bogs, marshes or oxbowholes). Do not contaminate water when disposing of equipment washwaters.

##### Physical or Chemical Hazards

Spray solutions of this product should be mixed, stored and applied only in stainless steel, aluminum, fiberglass, plastic and plastic-lined steel containers. DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS.

(SEE ADDITIONAL PRECAUTIONS INSIDE PAMPHLET.)

(SEE PAMPHLET FOR STORAGE AND DISPOSAL)

This product is protected by U.S. Patents No. 3,799,758, No. 4,405,531 and No. 4,840,650. Other patents pending. No license granted under any non-U.S. patent(s).



MONSANTO COMPANY  
AGRICULTURAL PRODUCTS  
ST. LOUIS, MISSOURI 63167 U.S.A.  
© MONSANTO COMPANY 1990  
EPA Reg. No. 524-390-0000  
EPA Est. 524-A-1  
897-17-000-141/2

#### Change to:

#### **WARNING!**

CAUSES SUBSTANTIAL BUT TEMPORARY EYE INJURY. HARMFUL IF INHALED.

Do not get in eyes or breathe spray mist or get in or on clothing.

Wear goggles, face shield or safety glasses.

Wash thoroughly with soap and water after handling.

Remove contaminated clothing and wash before reuse.

**FIRST AID:** IF IN EYES, hold eyelids open and flush with plenty of water. Get medical attention.

IF INHALED, remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

IF SWALLOWED, drink promptly a large quantity of milk, egg whites, or gelatin solution. If these are not available drink large quantities of water. Get medical attention.

Add: Picture of telephone receiver

Change to: 91

xxx



United States Environmental Protection Agency  
Office of Pesticide Programs (TS-767)  
Washington, DC 20460

Application for Pesticide: ☐ Registration  
☒ Amendment

OPP Identifier Number

140871

## Section I

1. Company/Product Number  
Monsanto / 524-445

2. Date  
February 20, 1991

3. Product Manager  
Robert J. Taylor (25)

4. Proposed Classification  
☒ General ☐ Restricted

5. Name and Address of Applicant (include ZIP Code)

Monsanto Company  
700 14th Street, N.W., #1100  
Washington, D.C. 20005

☐ Check if this is a new address

6. Product Name

MON-35085 Super Concentrate Grass &amp; Weed Killer

## Section II - Amendment Information

1. Subject

☐ Resubmission in response to Agency letter ☐ Final printed label in response to Agency letter ☒ Other (explain below)

Date of Letter

Amend Registration of MON-35085 Herbicide to add Lawn &amp; Garden (homeowner) uses

## Section III

1. Material This Product Will Be Packaged In

Child-Resistant Packaging ☐ Yes ☒ No

Unit Packaging ☒ Yes ☐ No

If "Yes," Unit package wgt No. per container  
32 fl. oz. 12/case

Water-Soluble Packaging ☐ Yes ☒ No

If "Yes," Package weight No. per container

2. Type of Container

☐ Metal ☒ Plastic ☐ Glass ☐ Paper ☐ Other (Specify)

3. Location of Net Contents Information ☐ Label ☒ Container

4. Size(s) of Retail Container  
1 qt, 32 fl. (oz.)

5. Location of Label Directions

☒ On Label  
☐ On material accompanying product

6. Manner in Which Label Is Affixed To Product

☐ Lithograph ☒ Other (Specify)  
☐ Paper glued Detachable fix-a-form pamphlet  
☐ Stenciled

## Section IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application).

Name

Dr. Kevin F. Cannon

Title

Manager, Agricultural Affairs

Telephone No. (include Area Code)  
(202) 783-2460

6. Date Application Received  
(Stamped)

## Certification

I certify that the statements I have made on this form and all attachments thereto are true, accurate, and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

2. Signature

3. Title

Registration Manager

4. Typed Name

Roy G. Danhaus

5. Date Signed

20 Feb 91



CERTIFICATION WITH RESPECT TO CITATION OF DATA

EPA File Symbol/Reg. No. 524-445 Date of Application February 20, 1991

Name of Product MON-35085 Super Concentrate Grass & Weed Killer

Applicant's Name and Address Monsanto Company

700 14th Street, N.W., #1100

Washington, D.C. 20005

1. This application is supported by all data submitted or cited in the application. In addition, if cite-all options are indicated, this application is supported by all data in the Agency's files that concern the properties or effects of this product or of any other product that is identical or substantially similar, and that is one of the types of data that would be required to be submitted if this application sought the initial registration of a product of identical or similar composition and intended uses under the data requirements in effect on the date of approval of this application.

2. I certify that, for each study cited in support of this application for registration that is an exclusive use study, I have obtained the written permission of the original data submitter to cite that study.

3. I certify that, for each study cited in support of this application for registration that is not an exclusive use study:

I have obtained the written permission of the original data submitter to cite that study; or

I have notified in writing the companies who have submitted data I have cited to support those applications and have offered to: (a) Pay compensation for those data in accordance with section 3(c)(1)(D) and 3(c)(2)(D) of the Federal Insecticide, Fungicide and Rodenticide Act; and (b) Commence negotiations to determine which data are subject to the compensation requirements of FIFRA and the amount and terms of compensation due, if any. The companies I have notified are: (Check one)

☐ All companies listed on the Pesticide Data Submitters List for all active ingredients contained in my product (Cite-all method or cite-all option under Selective Method). (Also sign the General Offer to Pay Statement below).

☒ Monsanto Company has submitted the studies which I have cited (Selective Method).

Date February 20, 1991

Signature Roy J. Decker

Title Registration Manager

General Offer to Pay: I hereby offer and agree to pay compensation to other persons, with regard to the approval of this application, to the extent required by FIFRA sec. 3(c)(1)(D) and 3(c)(2)(D).

Date February 20, 1991

Signature Roy J. Decker

Title Registration Manager

295

# Monsanto

Monsanto Company  
Suite 1100  
700 14th Street, N.W.  
Washington, D.C. 20005

20 February 1991

Document Processing Desk (AMEND)  
Office of Pesticide Programs  
U.S. Environmental Protection Agency  
1921 Jefferson Davis Highway  
Crystal Mall #2, Room 266A  
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor  
Product Manager (25)

Subject: MON 35085 Herbicide (EPA Reg No. 524-445)  
Submission of a Draft Label for MON 35085 Super Concentrate Grass & Weed Killer,  
a Lawn & Garden or Homeowner Product

Dear Sir:

The Agency approved the draft label for MON 35085, a formulation containing 41% glyphosate active ingredient isopropylamine salt on 1 February 1991. That draft label contained directions for use in both crop and noncrop applications similar to those found on the Roundup Herbicide label (EPA Reg. No. 524-308).

Monsanto is now submitting a label for the lawn & garden (homeowner) uses of MON 35085 for Agency approval. The MON 35085 Super Concentrate Grass & Weed Killer label is identical to the currently approved Roundup Super Concentrate Grass & Weed Killer in terms of Directions For Use and it carries the signal word and precautionary text recently approved for MON 35085. In effect then, the MON 35085 Super Concentrate Grass & Weed Killer label is the MON 35085 analogue to the Roundup Super Concentrate Grass & Weed Killer currently registered and sold.

We are submitting five copies of the draft 1 quart container labels for MON 35085 Super Concentrate Grass & Weed Killer. The label consists of a front panel and a back panel which incorporates the fix-a-form pamphlet. Also enclosed is a completed Application for Pesticide Registration.

We would appreciate your review and approval of this label as soon as possible.

If there are any questions regarding this submission, please contact Kevin Cannon at (202) 783-2460.

Sincerely,



Roy G. Danhaus  
Registration Manager

cc. M. N. Cline M2C  
R. P. Schneider  
S. A. Schuette

D. M. Fee-White N3G

..... 276



Dr. Sheila A. Schuette  
Monsanto Company  
700 14th Street NW., Suite 1100  
Washington, DC 20005

Dear Dr. Schuette:

Subject: MON-35085 (Weed Control Prior to Emergence of  
Tomatoes in California)  
EPA Registration No. 524-445  
Your Letter Dated February 14, 1991

The amendment referred to above, submitted in connection with  
registration under section 3(c)(7)(A) of the Federal Insecticide,  
Fungicide, and Rodenticide Act (FIFRA), is acceptable provided that you:

1. Submit/cite all data required for registration/reregistration  
of your product under FIFRA section 3(c)(5) and section 4 when  
the Agency requires all registrants of similar products to submit  
such data.
2. Submit five (5) copies of your final printed labeling before you  
release the product for shipment.

If these conditions are not complied with, the registration will be  
subject to cancellation in accordance with FIFRA section 6(e). Your release  
for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Sincerely yours,

Robert J. Taylor  
Product Manager (25)  
Fungicide-Herbicide Branch  
Registration Division (H7505C)

Enclosure

54426:I:CR-43:Walters:L25-1:KEVRIC:03/04/91:13/08/91:TK

| CONCURRENCES |           |  |  |  |  |  |  |
|--------------|-----------|--|--|--|--|--|--|
| SYMBOL       | H7505C    |  |  |  |  |  |  |
| SURNAME      | VK Waller |  |  |  |  |  |  |
| DATE         | 3/18/91   |  |  |  |  |  |  |

278

# Monsanto

Monsanto Company  
Suite 1100  
700 14th Street, N.W.  
Washington, D.C. 20005

February 14, 1991

Document Processing Center (Amend)  
Office of Pesticide Programs - H7504C  
U.S. Environmental Protection Agency  
1921 Jefferson Davis Highway  
Crystal Mall #2, Room 226A  
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor  
Product Manager (25)

Subject: **MON-35085 Herbicide (EPA Reg. No. 524-445)**  
**Supplemental Label:** Weed control prior to emergence of tomatoes in California.

Dear Sir:

Enclosed for Agency review and approval are five (5) copies of a supplemental label for MON-35085 herbicide recommending the use of MON-35085 prior to the emergence of tomatoes. This label is for use in California only. The recommended application rates do not exceed those currently approved on the MON-35085 label herbicide label and therefore tolerances are not an issue.

An Application for Pesticide Amendment and Certification with Respect to Citation of Data and General Offer to Pay are enclosed.

If you have any questions regarding this request, please contact Dr. Kevin Cannon or me.

Sincerely,



Sheila A. Schuette, Ph.D.  
Senior Registration Specialist  
(314) 694-7248

## SUPPLEMENTAL LABELING

READ THE ENTIRE LABEL BOOKLET FOR MON-35085 BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labeling refers to the booklet for MON-35085 herbicide and this supplement.

**MON-35085**  
**Herbicide by Monsanto**

EPA Reg. No. 524-445

---

FOR DISTRIBUTION AND USE IN CALIFORNIA

FOR POSTEMERGENCE WEED CONTROL PRIOR TO THE  
EMERGENCE OF TOMATOES

---

Keep out of reach of children.

### WARNING!

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

---

### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

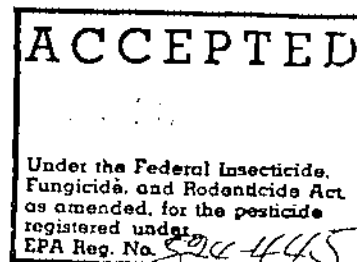
This label must be in the possession of the user at the time of herbicide application.

AVOID CONTACT WITH FOLIAGE, GREEN STEMS, OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, SINCE SEVERE INJURY OR DESTRUCTION MAY RESULT.

When applied as directed under the conditions described in the label booklet for MON-35085, the product controls annual and perennial weeds listed on that label, prior to the emergence of tomatoes.

See the "GENERAL INFORMATION", "MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS", "APPLICATION EQUIPMENT AND TECHNIQUES" and "WEEDS CONTROLLED" sections of the label booklet for MON-35085 for essential product performance information.

1



280

This product may be applied by ground or aerial application equipment. FOR AERIAL APPLICATION IN CALIFORNIA, REFER TO THE FEDERAL SUPPLEMENTAL LABEL FOR AERIAL APPLICATIONS IN THAT STATE FOR SPECIFIC INSTRUCTIONS, RESTRICTIONS AND REQUIREMENTS, AND DO NOT EXCEED A RATE OF 1 QUART PER ACRE.

Applications made to light, sandy soils with low organic matter may result in injury to seedling tomatoes.

Applications made at emergence will result in injury or death to emerged seedlings.

#### RECOMMENDATIONS

This product will control annual and perennial weeds listed in the label booklet for MON-35085 prior to the emergence of direct seeded tomatoes.

Annual Weed Control--Apply 8 to 48 fluid ounces of this product per acre plus 0.5 to 1 percent nonionic surfactant in 3 to 10 gallons of water per acre as directed in the "Low-Volume Broadcast Applications" section of the label booklet for MON-35085.

When using 10 to 40 gallons of water per acre, use 1 quart of this product if annual weeds are less than 6 inches tall. If weeds are greater than 6 inches tall, use 1.5 quarts of this product per acre.

Perennial Weed Control--Apply 3 to 5 quarts of this product per acre when weeds are actively growing and most have reached early head or early bud stage of growth. See the "Perennial Weeds" section of the label booklet for MON-35085 for perennial weeds controlled and for specific treatment recommendations.

---

Read the "LIMIT OF WARRANTY AND LIABILITY" in the label for MON-35085 before using this product. Those terms apply to this supplemental labeling and if those terms are not acceptable, return the product unopened at once.

---

©MONSANTO COMPANY 1991

MAP-3168

MONSANTO COMPANY  
AGRICULTURAL PRODUCTS  
ST. LOUIS, MISSOURI 63167

| SUBMISSION REVIEW RECORD      |                  |  |                          | 1. REGISTRATION NUMBER |  |  |         | CYCLE               | 2. DATE RECEIVED      |    |  |
|-------------------------------|------------------|--|--------------------------|------------------------|--|--|---------|---------------------|-----------------------|----|--|
| 3. 3CID PUBLICATION NECESSARY |                  |  |                          | 4. PETITION NO.        |  |  |         | 5. RECEIVED PM TEAM |                       |    |  |
| 6. METHOD OF SUPPORT          |                  |  |                          | 7. PRODUCT MANAGER     |  |  |         | NO.                 | 8. PROJECTED RETURN   |    |  |
| 9. DATE PULLED                |                  | 10. DATE PUBLISHED                               |                          | 11. ACTION TYPE        |  |  |         | CODE                | 12. OUTGOING DATE     |    |  |
| REV. SEQ.                     | REVIEW TYPE CODE | REVIEW TYPE                                      | REVIEWER CODE (Initials) | SIGNATURE OF REVIEWER  |  |  |         | COM. CODE           | DATE REVIEW COMPLETED |    |  |
|                               | A                | REVIEWABILITY TEAM                               |                          |                        |  |  |         |                     |                       |    |  |
|                               | B                | PRODUCT MANAGER TEAM EFFICACY REVIEW             |                          |                        |  |  |         |                     |                       |    |  |
|                               | C                | PRODUCT MANAGER TEAM HUMAN SAFETY REVIEW         |                          |                        |  |  |         |                     |                       |    |  |
|                               | D                | PRODUCT MANAGER TEAM ENVIRONMENTAL SAFETY REVIEW |                          |                        |  |  |         |                     |                       |    |  |
|                               | E                | PRODUCT MANAGER TEAM RESUBMISSION REVIEW         |                          |                        |  |  |         |                     |                       |    |  |
|                               | F                | PRODUCT MANAGER                                  |                          |                        |  |  | UKW NAC | 013                 | 07                    | 91 |  |
|                               | G                | INTERAGENCY REFERRAL                             |                          |                        |  |  |         |                     |                       |    |  |
|                               | H                | COST-BENEFIT REVIEW                              |                          |                        |  |  |         |                     |                       |    |  |
|                               | I                | PUBLIC COMMENTS REVIEW                           |                          |                        |  |  |         |                     |                       |    |  |
|                               | J                | EEE BRANCH INSECTICIDE EFFICACY                  |                          |                        |  |  |         |                     |                       |    |  |
|                               | K                | EEE BRANCH HERBICIDE EFFICACY                    |                          |                        |  |  |         |                     |                       |    |  |
|                               | L                | EEE BRANCH FUNGICIDE EFFICACY                    |                          |                        |  |  |         |                     |                       |    |  |
|                               | M                | EEE BRANCH RODENTICIDE EFFICACY                  |                          |                        |  |  |         |                     |                       |    |  |
|                               | N                | EEE BRANCH DISINFECTANT EFFICACY                 |                          |                        |  |  |         |                     |                       |    |  |
|                               | O                | CHEMISTRY BRANCH RESIDUE CHEMISTRY               |                          |                        |  |  |         |                     |                       |    |  |
|                               | P                | EEE BRANCH ENVIRONMENTAL CHEMISTRY               |                          |                        |  |  |         |                     |                       |    |  |
|                               | Q                | TOXICOLOGY BRANCH HUMAN SAFETY                   |                          |                        |  |  |         |                     |                       |    |  |
|                               | R                | EEE BRANCH ENVIRONMENTAL SAFETY                  |                          |                        |  |  |         |                     |                       |    |  |
|                               | S                |  |                          |                        |  |  |         |                     |                       |    |  |
|                               | T                |  |                          |                        |  |  |         |                     |                       |    |  |
| PRODUCT MANAGER SIGNATURE     |                  |  |                          | TYPE OF RESPONSE       |  |  |         | CODE                |                       |    |  |
|                               |                  |  |                          |                        |  |  |         |                     |                       |    |  |





United States Environmental Protection Agency  
Office of Pesticide Programs (TS-767)  
Washington, DC 20460

Application for Pesticide:

☐ Registration  
☒ Amendment

OPP Identifier Number

140867

## Section I

1. Company/Product Number  
Monsanto/524-445

2. Date  
February 14, 1991

3. Product Manager  
Robert J. Taylor (25)

4. Proposed Classification  
☒ General ☐ Restricted

5. Name and Address of Applicant (Include ZIP Code)

Monsanto Company  
Suite 1100  
700 14th Street, N.W.  
Washington, D.C. 20005

☐ Check if this is a new address

6. Product Name

MON 35085 Herbicide

## Section II - Amendment Information

1. Subject  
☐ Resubmission in response to Agency letter ☐ Final printed label in response to Agency letter ☒ Other (explain below)

Date of Letter  
2/14/91

Amendment to the Use Instructions: Supplemental label  
Weed control prior to emergence  
of tomatoes in California

## Section III

1. Material This Product Will Be Packaged In

Child-Resistant Packaging ☐ Yes ☒ No

Unit Packaging ☒ Yes ☐ No

Water-Soluble Packaging ☐ Yes ☒ No

Unit package wgt No. per container  
24 lb. 2

Package weight No. per container

2. Type of Container  
☐ Metal  
☒ Plastic  
☐ Glass  
☐ Paper  
☐ Other (Specify)

3. Location of Net Contents Information ☐ Label ☒ Container

4. Size(s) of Retail Container  
1 gal; 2.5 gal; 30 gal; 54 gal

5. Location of Label Directions

☒ On Label  
☒ On material accompanying product

6. Manner in Which Label Is Affixed To Product

☐ Lithograph ☒ Other (Specify)  
☐ Paper glued  
☐ Stenciled Vinyl glued

## Section IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application).

Name

Kevin F. Cannon, Ph.D.

Title

Manager, Agricultural Affairs

Telephone No. (Include Area Code)

(202) 783-2460

C. Date Application Received (Stamp)

**Certification**  
I certify that the statements I have made on this form and all attachments thereto are true, accurate, and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

2. Signature

3. Title

Senior Registration Specialist

4. Typed Name

Sheila A. Schuette

5. Date Signed

2/14/91

CERTIFICATION WITH RESPECT TO CITATION OF DATA

EPA File Symbol/Reg. No. 524-445 Date of Application February 14, 1991

Name of Product MON-35085 Herbicide

Applicant's Name and Address Monsanto Company

Suite 1100

700 14th Street, N.W.

Washington, D.C. 20005

1. This application is supported by all data submitted or cited in the application. In addition, if cite-all options are indicated, this application is supported by all data in the Agency's files that concern the properties or effects of this product or of any other product that is identical or substantially similar, and that is one of the types of data that would be required to be submitted if this application sought the initial registration of a product of identical or similar composition and intended uses under the data requirements in effect on the date of approval of this application.

2. I certify that, for each study cited in support of this application for registration that is an exclusive use study, I have obtained the written permission of the original data submitter to cite that study.

3. I certify that, for each study cited in support of this application for registration that is not an exclusive use study:

I have obtained the written permission of the original data submitter to cite that study; or

I have notified in writing the companies who have submitted data I have cited to support those applications and have offered to: (a) Pay compensation for those data in accordance with section 3(c)(1)(D) and 3(c)(2)(D) of the Federal Insecticide, Fungicide and Rodenticide Act; and (b) Commence negotiations to determine which data are subject to the compensation requirements of FIFRA and the amount and terms of compensation due, if any. The companies I have notified are: (Check one)

☐ All companies listed on the Pesticide Data Submitters List for all active ingredients contained in my product (Cite-all method or cite-all option under Selective Method). (Also sign the General Offer to Pay Statement below).

☒ Monsanto Company has submitted the studies which I have cited (Selective Method).

Date February 14, 1991

Signature Shirley A. Schmitt 2/14/91

Title Senior Registration Specialist

General Offer to Pay: I hereby offer and agree to pay compensation to other persons, with regard to the approval of this application, to the extent required by FIFRA sec. 3(c)(1)(D) and 3(c)(2)(D).

Date February 14, 1991

Signature Shirley A. Schmitt 2/14/91

Title Senior Registration Specialist ..... 284

MON 35085

RT

HERBICIDE BY

Monsanto

For control of annual and perennial weeds  
in reduced tillage systems.

Carefully follow detailed instructions in attached label booklet

AVOID CONTACT WITH FOLIAGE, GREEN STEMS, OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES  
SINCE SEVERE INJURY OR DESTRUCTION MAY RESULT.

Read the entire label before using this product.

Use only according to label instructions.

Read "LIMIT OF WARRANTY AND LIABILITY", which appears in the label booklet, before buying or using. If terms are not acceptable return at once unopened.

The contents of this container may not be REFORMULATED, nor, except in accordance with the Monsanto Repackaging Agreement, REPACKAGED.

#### PRECAUTIONARY STATEMENTS

#### Hazards to Humans and Domestic Animals

Keep out of reach of children.

### WARNING!

CAUSES SUBSTANTIAL BUT TEMPORARY EYE INJURY.

HARMFUL IF INHALED.

Do not get in eyes or breathe spray mist or get in or on clothing.

Wear goggles, face shield or safety glasses. Wash thoroughly with soap and water after handling.

Remove contaminated clothing and wash before reuse.

FIRST AID: IF IN EYES, hold eye lids open and flush with plenty of water. Get medical attention.

IF INHALED, remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

IF SWALLOWED, drink promptly a large quantity of milk, egg whites, or gelatin solution. If these are not available drink large quantities of water. Get medical attention.

In case of emergency involving this product,  
Call Collect, day or night, (314) 694-4000.

#### Environmental Hazards

Do not apply directly to water or wetland (swamps, bogs, marshes or potholes). Do not contaminate water when disposing of equipment washwaters.

#### Physical or Chemical Hazards

Spray solutions of this product should be mixed, stored and applied only in stainless steel, aluminum, fiberglass, plastic and plastic-lined steel containers.

DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such containers and tanks to produce

hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

#### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

#### Storage and Disposal

Do not contaminate water, foodstuffs, seed or feed by storage or disposal.

#### DISPOSAL:

Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state or local procedures.

Emptied container retains vapor and product residue. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed.

Do not reuse container. Return emptied container per the Monsanto container return program. If not returned, triple rinse container, then puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

(See label booklet for Complete Directions for Use.)

#### ACTIVE INGREDIENT:

\*Glyphosate, N-(phosphonomethyl) glycine  
in the form of its isopropylamine salt . . . . 41.0%

INERT INGREDIENTS: . . . . . 59.0%  
100.0%

\*Contains 480 grams per litre or 4 pounds of the active ingredient, glyphosate, in the form of its isopropylamine salt. Equivalent to 356 grams per litre or 3 pounds per U.S. gallon of the acid, glyphosate.

This product protected by U.S. Patents No. 3,799,758, No. 4,405,531 and No. 4,840,650. Other patents pending. No license granted under any non-U.S. patent(s).

• Registered trademark of Monsanto Company

EPA Reg. No. 524- 445

© MONSANTO COMPANY 1996

In case of emergency involving this product,  
Call Collect, day or night, (314) 694-4000.

MONSANTO COMPANY  
AGRICULTURAL PRODUCTS  
ST. LOUIS, MISSOURI 63167 U.S.A.



678.15-000-04

PLACE

Complete Directions For Use  
Booklet

HERE

NET CONTENTS

EPA Est.

ACCEPTED

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act,  
as amended, for the pesticide  
registered under  
EPA Reg. No. 524-445

Dr. Sheila A. Schuette  
Monsanto Company  
700 14th Street NW, Suite 1100  
Washington, DC 20005

Dear Dr. Schuette:

Subject: MON-35085 (Additional Brand Name and Uses)  
EPA Registration No. 524-445  
Your Application Dated February 22, 1991

The additional brand name "MON 35085 RT" is acceptable and our records have been modified accordingly.

The amendment referred to above, submitted in connection with registration under section 3(c)(7)(A) of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), is acceptable provided that you:

1. Submit/site all data required for registration/re-registration of your product under FIFRA section 3(c)(5) and section 4 when the Agency requires all registrants of similar products to submit such data.
2. Submit five (5) copies of your final printed labeling before you release the product for shipment.

54426:I:Walters:L25-1:KEVRIC:03/04/91:13/08/91:TK:DD

CONCURRENCES

|         |            |  |  |  |  |  |  |  |
|---------|------------|--|--|--|--|--|--|--|
| SYMBOL  | H7505C     |  |  |  |  |  |  |  |
| SURNAME | JK Walters |  |  |  |  |  |  |  |
| DATE    | 3/18/91    |  |  |  |  |  |  |  |

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Sincerely yours,

Robert J. Taylor  
Product Manager (25)  
Fungicide-Herbicide Branch  
Registration Division (H7505C)

Enclosure

# Monsanto

---

Monsanto Company  
Suite 1100  
700 14th Street, N.W.  
Washington, D.C. 20005

February 22, 1991

Document Processing Center (AMEND)  
Office of Pesticide Programs - H7504C  
U.S. Environmental Protection Agency  
1921 Jefferson Davis Highway  
Crystal Mall #2, Room 226A  
Arlington, Virginia 22202

Attention: Mr. Robert J. Taylor  
Product Manager (25)

Subject: MON-35085 Herbicide (EPA Reg. No. 524-445)  
Request for Additional Brand Name and Amended Use Instructions

Dear Sir:

Monsanto is submitting for Agency review and approval an additional brand name request and amended label text for MON-35085 RT. MON-35085 RT will be selectively marketed in agricultural areas that practice reduced or limited tillage for moisture and soil conservation. The MON-35085 RT label text is extracted directly from the approved text on the current MON-35085 label booklet with the exception of the changes given below. All precautionary language is identical to the approved verbiage on the currently approved MON-35085 label.

The following changes have been made to the approved MON-35085 text for the MON-35085 RT label:

1. County Restrictions are given on pp. 1-4.
2. The ammonium sulfate rate is changed from 2 percent to 1 to 2 percent.
3. The Application Equipment and Techniques section has been modified to include only aerial, conventional ground or hooded spray equipment. The Sprayer Cleanup section is more prominent and more specific instructions have been provided.

..... 288 -

4. Under Annual Weeds, a recommendation for the addition of 0.5% of a nonionic surfactant has been made.
5. Jagged chickweed, jointed goatgrass, and annual spurge have been added to the Annual Weeds section; the rate recommendations for several other annual weeds have been changed.
6. In the section on Fallow and Reduced Tillage Systems, the recommendation for MON-35085 plus Goal™ has been changed to MON-35085 RT plus Atrazine or Bladex™. In addition, the two sections on Tank Mixtures for annual weeds in the MON-35085 label have been combined in the MON-35085 RT label.
7. Sections on Postharvest Applications and Ecofarming Systems, which have been approved for other glyphosate-containing products, have been included in this label.
8. In the Aid to Tillage section, the recommended surfactant rate has been changed from 0.5 to 1 percent to 0.5 percent, and more detailed instructions have been provided.
9. In the Perennial Weeds section, many of the weeds not found in the area of product use have been removed. The claim for leafy spurge has been changed from control to suppression, and the recommendations for quackgrass have been changed. A recommendation of 1 qt/A for the suppression of Canada thistle has been added.
10. The Cropping Systems section has been changed to include only those crops that are appropriate for the area of use.
11. The Perennial Grass Suppression / Orchard Floors sections has been modified to be more appropriate for the area of use.
12. The Tree Crops and Vine Crops sections have been modified to include those crops that are appropriate for the area of use.
13. A Farm Ditches and Waterways section has been added to the Farmstead Weed Control section.

Monsanto requests that the Agency approve this MON-35085 RT label text and brand name. Five (5) copies of the pamphlet and shuttle label containers are enclosed for your approval and stamping.

An Application for Pesticide Amendment and Certification with Respect to Citation of Data and General Offer to Pay are also enclosed.

If you have any questions regarding this request, please contact Dr. Kevin Cannon or me.

Sincerely,



Sheila A. Schuette, Ph.D.  
Senior Registration Specialist  
(314) 694-7248

cc: R.P. Schneider  
K.F. Cannon  
Fred Groya  
I.C. O'Connor



| SUBMISSION REVIEW RECORD                                 |                  |  |                          | 1. REGISTRATION NUMBER |                 |                       |     | CYCLE   | 2. DATE RECEIVED    |  |                        |                         |  |  |  |
|--|------------------|--|--------------------------|------------------------|-----------------|-----------------------|-----|---|---------------------|--|------------------------|-------------------------|--|--|--|
| 3. SCID PUBLICATION NECESSARY                            |                  |  |                          | 4. PETITION NO.        |                 |                       |     | 5. RECEIVED PM TEAM   |                     |  |                        |                         |  |  |  |
| 6. METHOD OF SUPPORT                                     |                  |  |                          | 7. PRODUCT MANAGER     |                 |                       |     | NO.   | 8. PROJECTED RETURN |  |                        |                         |  |  |  |
| 9. DATE PULLED   |                  |  |                          | 10. DATE PUBLISHED     |                 |                       |     | 11. ACTION TYPE   |                     |  |                        |                         |  |  |  |
| 12. OUTGOING DATE  |                  |  |                          | 13. REVIEW TYPE        |                 |                       |     | 14. REVIEWER CODE   |                     |  |                        |                         |  |  |  |
| <input type="checkbox"/> YES <input type="checkbox"/> NO |                  |  |                          |                        |                 |                       |     | <input type="checkbox"/> 2A <input type="checkbox"/> 2B <input type="checkbox"/> 2C |                     |  | NO.    MO    DAY    YR |                         |  |  |  |
| 3/8/91   |                  |  |                          |                        |                 |                       |     | additional Name (MON-35085P)<br>and we discussed advised<br>tillage 310             |                     |  |                        | CODE    MO    DAY    YR |  |  |  |
| REV. SEQ.  | REVIEW TYPE CODE | REVIEW TYPE                                      | REVIEWER CODE (Initials) | SIGNATURE OF REVIEWER  | COM. MENT. CODE | DATE REVIEW COMPLETED |     |   |                     |  |                        |                         |  |  |  |
|  | A                | REVIEWABILITY TEAM                               |                          |                        |                 | MO                    | DAY | YR  |                     |  |                        |                         |  |  |  |
|  | B                | PRODUCT MANAGER TEAM EFFICACY REVIEW             |                          |                        |                 |                       |     |   |                     |  |                        |                         |  |  |  |
|  | C                | PRODUCT MANAGER TEAM HUMAN SAFETY REVIEW         |                          |                        |                 |                       |     |   |                     |  |                        |                         |  |  |  |
|  | D                | PRODUCT MANAGER TEAM ENVIRONMENTAL SAFETY REVIEW |                          |                        |                 |                       |     |   |                     |  |                        |                         |  |  |  |
|  | E                | PRODUCT MANAGER TEAM RESUBMISSION REVIEW         |                          |                        |                 |                       |     |   |                     |  |                        |                         |  |  |  |
|  | F                | PRODUCT MANAGER                                  |                          |                        |                 |                       |     |   |                     |  |                        |                         |  |  |  |
|  | G                | INTERAGENCY REFERRAL                             |                          |                        |                 |                       |     |   |                     |  |                        |                         |  |  |  |
|  | H                | COST-BENEFIT REVIEW                              |                          |                        |                 |                       |     |   |                     |  |                        |                         |  |  |  |
|  | I                | PUBLIC COMMENTS REVIEW                           |                          |                        |                 |                       |     |   |                     |  |                        |                         |  |  |  |
|  | J                | EEE BRANCH INSECTICIDE EFFICACY                  |                          |                        |                 |                       |     |   |                     |  |                        |                         |  |  |  |
|  | K                | EEE BRANCH HERBICIDE EFFICACY                    |                          |                        |                 |                       |     |   |                     |  |                        |                         |  |  |  |
|  | L                | EEE BRANCH FUNGICIDE EFFICACY                    |                          |                        |                 |                       |     |   |                     |  |                        |                         |  |  |  |
|  | M                | EEE BRANCH RODENTICIDE EFFICACY                  |                          |                        |                 |                       |     |   |                     |  |                        |                         |  |  |  |
|  | N                | EEE BRANCH DISINFECTANT EFFICACY                 |                          |                        |                 |                       |     |   |                     |  |                        |                         |  |  |  |
|  | O                | CHEMISTRY BRANCH RESIDUE CHEMISTRY               |                          |                        |                 |                       |     |   |                     |  |                        |                         |  |  |  |
|  | P                | EEE BRANCH ENVIRONMENTAL CHEMISTRY               |                          |                        |                 |                       |     |   |                     |  |                        |                         |  |  |  |
|  | Q                | TOXICOLOGY BRANCH HUMAN SAFETY                   |                          |                        |                 |                       |     |   |                     |  |                        |                         |  |  |  |
|  | R                | EEE BRANCH ENVIRONMENTAL SAFETY                  |                          |                        |                 |                       |     |   |                     |  |                        |                         |  |  |  |
|  | S                |  |                          |                        |                 |                       |     |   |                     |  |                        |                         |  |  |  |
|  | T                |  |                          |                        |                 |                       |     |   |                     |  |                        |                         |  |  |  |
| PRODUCT MANAGER SIGNATURE                                |                  |  |                          | TYPE OF RESPONSE       |                 |                       |     | CODE  |                     |  |                        |                         |  |  |  |



United States Environmental Protection Agency  
Office of Pesticide Programs (TS-767)  
Washington, DC 20460

Application for Pesticide:

☐ Registration  
☒ Amendment

OPP Identifier Number

140872

## Section I

1. Company/Product Number  
Monsanto/524-445

2. Date  
February 22, 1991

3. Product Manager  
Robert J. Taylor (25)

4. Proposed Classification  
☒ General ☐ Restricted

5. Name and Address of Applicant (Include ZIP Code)

Monsanto Company  
Suite 1100  
700 14th Street, N.W.  
Washington, D.C. 20005

☐ Check if this is a new address

6. Product Name  
MON-35085 RT

## Section II - Amendment Information

1. Subject  
☐ Resubmission in response to Agency letter ☐ Final printed label in response to Agency letter ☒ Other (explain below)

Date of Letter  
2/22/91

Request for additional brand name and amended use instructions:

MON 35085 RT

## Section III

1. Material This Product Will Be Packaged In  
Child-Resistant Packaging ☐ Yes ☒ No

Unit Packaging ☐ Yes ☒ No

Water-Soluble Packaging ☐ Yes ☒ No

If "Yes," Unit package wgt No. per container

If "Yes," Package weight No. per container

2. Type of Container  
☐ Metal ☒ Plastic ☐ Glass ☐ Paper ☐ Other (Specify)

3. Location of Net Contents Information ☐ Label ☒ Container

4. Size(s) of Retail Container  
100 gal. minibulk

5. Location of Label Directions ☐ On Label ☒ On material accompanying product

6. Manner in Which Label Is Affixed To Product  
☐ Lithograph ☒ Other (Specify)  
☐ Paper glued ☐ Stenciled  
Vinyl glued

## Section IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application).

Name  
Kevin F. Cannon, Ph.D.

Title  
Manager, Agricultural Affairs

Telephone No. (Include Area Code)  
(202) 783-2460

6. Date Application Received (Stamp)

**Certification**  
I certify that the statements I have made on this form and all attachments thereto are true, accurate, and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

2. Signature  
*Sheila A. Schuette* 2/22/91

3. Title  
Senior Registration Specialist

4. Typed Name  
Sheila A. Schuette

5. Date Signed  
February 22, 1991

# Paperwork Reduction Act Notice and Instructions

## Paperwork Reduction Act Notice

Public reporting burden for this collection of information is estimated to average of 0.85 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

## Instructions

### General

This form is to be used for all applications for new and amended registrations for pesticide products.

In order to process an application for new registration submitted on this form, the following material must accompany the application:

1. Offer to Pay Statement (EPA Form 8570-27, -28, -29). (If not exempted by 40 CFR 162.9-1(b).)
2. Confidential Statement of Formula (EPA Form 8570-4).
3. Five copies of draft labeling.
4. Three copies of any data submitted.

**Submission of Labeling** - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8 1/2 x 11 inch paper or as a mockup of the proposed label. If prepared as a mockup it should be constructed in such a way as to facilitate storage in an 8 1/2 x 11 inch file. Mockup labels significantly smaller than 8 1/2 x 11 inches should be mounted on 8 1/2 x 11 inch paper for submission.

**Submission of Data** - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

### Specific

Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Section I, III, and IV must be completed by the applicant. For applications submitted in connection with amended registration actions, Section I, II, and IV must be completed by the applicant.

**Block A** - Check the appropriate action for which you are submitting this form.

**Section I** - This Section must be completed for both Registration and Amended Registration actions.

1. **Company/Product Number** - Insert your company number, if one has been assigned. This number may have been assigned to you as a basic registrant, a distributor, or as an establishment. If application is for an amendment, insert the registration number of the product.
2. **Date** - Fill in the appropriate date.
3. **Product Manager** - If known, fill in the name and number of the Product Manager.
4. **Proposed Classification** - Specify the proposed classification for this product.
5. **Name and Address of Applicant** - The name of the firm or person and address shown in your application is the person or firm to whom registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration matters.

An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.

6. **Product Name** - Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.

### Amendment Information

**Section II** - This Section must be completed for all applications submitted in connection with Amended Registration.

1. **Subject of Amendment** - Check the appropriate block, and provide a brief explanation of the purpose(s) for the amendment, such as: "the addition of a site, pest, or crop"; "to change inert ingredient"; "general label revisions of precautionary statements," etc.

### Packaging and Container Information

**Section III** - This Section must be completed for all applications submitted in connection with New Registration.

1. **Type of Packaging** - Check the appropriate block if your product will be packaged in the indicated packaging types. Indicate the size of the individual packets and number per retail container.
2. **Type of Retail Container** - Indicate type of container in which product will be marketed.
3. **Location of Net Contents** - Specify the net contents of all retail containers for your product.
4. **Size(s) of Retail Container** - Specify the net contents of all retail containers for your product.
5. **Location of Use Directions** - Indicate the location of the use directions for your product.
6. **Manner in which label is affixed to product** - Indicate the method product labeling is attached to retail container.

### Contact Point

**Section IV** - This Section must be completed for all Registration and Amended Registration applications.

- 1-5. Self-explanatory.
6. EPA Use Only.

CERTIFICATION WITH RESPECT TO CITATION OF DATA

EPA File Symbol/Reg. No. 524-445 Date of Application February 22, 1991

Name of Product MON-35085 RT

Applicant's Name and Address Monsanto Company

Suite 1100

700 14th Street, N.W.

Washington, D.C. 20005

1. This application is supported by all data submitted or cited in the application. In addition, if cite-all options are indicated, this application is supported by all data in the Agency's files that concern the properties or effects of this product or of any other product that is identical or substantially similar, and that is one of the types of data that would be required to be submitted if this application sought the initial registration of a product of identical or similar composition and intended uses under the data requirements in effect on the date of approval of this application.

2. I certify that, for each study cited in support of this application for registration that is an exclusive use study, I have obtained the written permission of the original data submitter to cite that study.

3. I certify that, for each study cited in support of this application for registration that is not an exclusive use study:

I have obtained the written permission of the original data submitter to cite that study; or

I have notified in writing the companies who have submitted data I have cited to support those applications and have offered to: (a) Pay compensation for those data in accordance with section 3(c)(1)(D) and 3(c)(2)(D) of the Federal Insecticide, Fungicide and Rodenticide Act; and (b) Commence negotiations to determine which data are subject to the compensation requirements of FIFRA and the amount and terms of compensation due, if any. The companies I have notified are: (Check one)

☐ All companies listed on the Pesticide Data Submitters List for all active ingredients contained in my product (Cite-all method or cite-all option under Selective Method). (Also sign the General Offer to Pay Statement below).

☒ Monsanto Company has submitted the studies which I have cited (Selective Method).

Date February 22, 1991

Signature Sheila A. Schwartz

Title Senior Registration Specialist

General Offer to Pay: I hereby offer and agree to pay compensation to other persons, with regard to the approval of this application, to the extent required by FIFRA sec. 3(c)(1)(D) and 3(c)(2)(D).

Date February 22, 1991

Signature Sheila A. Schwartz

Title Senior Registration Specialist

294

# MON-35085® RT

By Monsanto

Shuttle™

100

For control of annual and perennial weeds in ~~reduced tillage systems~~ in Colorado, Idaho, Kansas\*, Minnesota\*, Montana, Nebraska\*, North Dakota, Oregon\*, South Dakota, Utah, Washington\* and Wyoming.

AVOID CONTACT WITH FOLIAGE, GREEN STEMS, OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, SINCE SEVERE INJURY OR DESTRUCTION MAY RESULT.

EPA Reg. No. 524-445

## Complete Directions for Use

~~Roundup® is a registered trademark of Monsanto Company.~~

1990-1 897.15-000.08/53  
1991-1 898.15-000.01/53

For control of annual and perennial weeds in ~~reduced tillage systems~~ in Colorado, Idaho, Kansas\*, Minnesota\*, Montana, Nebraska\*, North Dakota, Oregon\*, South Dakota, Utah, Washington\*, and Wyoming.

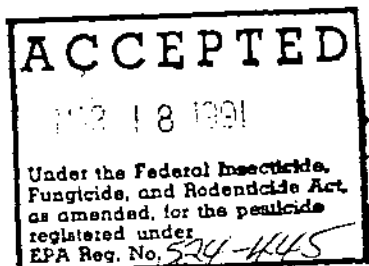
## \*COUNTY RESTRICTIONS

This product can only be used in certain counties in Kansas, Minnesota, Nebraska, Oregon, and Washington. See the following sections for county use restrictions for these states.

In KANSAS and NEBRASKA, this product can be used in all counties EXCLUDING those listed below:

### KANSAS

Ailen  
Anderson  
Atchinson  
Bourbon  
Brown  
Chase  
Cherokee  
Clay  
Coffey  
Crawford  
Dickinson  
Doniphan  
Douglas  
Franklin



Geary  
Jackson  
Jefferson  
Johnson

Labette  
Leavenworth  
Linn  
Lyon  
Marion  
Marshall  
Miami  
Montgomery  
Morris  
Nemaha  
Neosho  
Osage  
Pettawatomie  
Riley  
Shawnee  
Wabaunsee  
Washington  
Wilson  
Woodson  
Wyandotte

NEBRASKA

Antelope  
Boone  
Burt  
Butler  
Cass  
Cedar  
Clay  
Colfax  
Cuming  
Dakota  
Dixon  
Dodge  
Douglas  
Fillmore  
Gage  
Hamilton  
Jefferson  
Johnson  
Knox  
Lancaster  
Madison  
  
Merrick  
Nance  
Nemaha  
Nuckolls  
Otoe  
Pawnee  
Pierce  
Platte

Polk  
Richardson  
Saline  
Sarpy  
Saunders  
Seward  
Stanton  
Thayer  
Thurston  
Washington  
Wayne  
York

In MINNESOTA, OREGON and WASHINGTON, this product can be used ONLY in those counties listed below:

MINNESOTA

Becker  
Beltrami  
Clay  
Clearwater  
Douglas  
Grant  
Hubbard  
Kittson  
Lake of the Woods  
Mahnomen  
Marshall  
Norman  
Ottertail  
Pennington  
Polk  
Red Lake  
Roseau  
Wadena  
Wilkin

OREGON

Baker  
Crook  
Deschutes  
Gilliam  
Grant  
Hood River  
Jefferson  
Morrow  
Sherman  
Umatilla  
Union  
Wallowa  
Wasco  
Wheeler

WASHINGTON

Adams

Asotin  
Benton  
Chelan  
Columbia  
Douglas  
Ferry  
Franklin  
Garfield  
Grant  
Kittitus  
Klickitat  
Lincoln  
Okanagan  
Pend Oreille  
Spokane  
Stevens  
Walla Walla  
Whitman  
Yakima

Read the entire label before using this product.

Use only according to label instructions.

Read "LIMIT OF WARRANTY AND LIABILITY" before buying or using. If terms are not acceptable, return at once unopened.

REFORMULATION IS PROHIBITED. SEE INDIVIDUAL CONTAINER LABEL FOR REPACKAGING LIMITATIONS.

#### LIMIT OF WARRANTY AND LIABILITY

This Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

Buyer and all users shall promptly notify this Company of any claims whether based in contract, negligence, strict liability, other tort or otherwise.

Buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this Company, including, but not limited to, incompatibility with products other than those set forth in the Directions, application to or contact with desirable vegetation, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, application in any manner not explicitly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions,



or the presence of products other than those set forth in the Directions in or on the soil, crop or treated vegetation.

THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE LIMIT OF THE LIABILITY OF THIS COMPANY OR ANY OTHER SELLER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT (INCLUDING CLAIMS BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE) SHALL BE THE PURCHASE PRICE PAID BY THE USER OR BUYER FOR THE QUANTITY OF THIS PRODUCT INVOLVED, OR, AT THE ELECTION OF THIS COMPANY OR ANY OTHER SELLER, THE REPLACEMENT OF SUCH QUANTITY, OR, IF NOT ACQUIRED BY PURCHASE, REPLACEMENT OF SUCH QUANTITY. IN NO EVENT SHALL THIS COMPANY OR ANY OTHER SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES.

Buyer and all users are deemed to have accepted the terms of this LIMIT OF WARRANTY AND LIABILITY which may not be varied by any verbal or written agreement.

#### PRECAUTIONARY STATEMENTS

---

##### Hazards to Humans and Domestic Animals

---

Keep out of reach of children.

### **WARNING!**

CAUSES SUBSTANTIAL BUT TEMPORARY EYE INJURY.  
HARMFUL IF INHALED.

Do not get in eyes or breathe spray mist or get in or on clothing.

Wear goggles, face shield or safety glasses.

Wash thoroughly with soap and water after handling.

Remove contaminated clothing and wash before reuse.

FIRST AID: IF IN EYES, hold eyelids open and flush with plenty of water. Get medical attention.

IF INHALED, remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

IF SWALLOWED, drink promptly a large quantity of milk, egg whites, or gelatin solution. If these are not available drink large quantities of water. Get medical attention.

---

In case of emergency involving this product, Call Collect, day or night, (314) 694-4000.

---

##### Environmental Hazards

---

Do not apply directly to water or wetland (swamps, bogs, marshes or potholes). Do not contaminate water when disposing of equipment washwaters.

---

### Physical or Chemical Hazards

---

Spray solutions of this product should be mixed, stored and applied ~~only in using only~~ stainless steel, aluminum, fiberglass, plastic ~~and or~~ plastic-lined steel containers.

DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

#### ACTIVE INGREDIENT:

\*Glyphosate, N-(phosphonomethyl) glycine,  
in the form of its isopropylamine salt .....

INERT INGREDIENTS: ..... 41.0%  
..... 59.0%  
100.0%

\* Contains 480 grams per litre or 4 pounds per U.S. gallon of the active ingredient glyphosate, in the form of its isopropylamine salt. Equivalent to 356 grams per litre or 3 pounds per U.S. gallon of the acid, glyphosate.

---

### DIRECTIONS FOR USE

---

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

---

### Storage and Disposal

---

Do not contaminate water, foodstuffs, seed or feed or seed by storage or disposal.

#### DISPOSAL:

Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state or local procedures.

Emptied container retains vapor and product residue. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed.

Do not reuse container. Return emptied container per the Monsanto container return program. If not returned, triple rinse container,

then puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

#### GENERAL INFORMATION

DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT EXCEPT UNDER CONDITIONS AS SPECIFIED WITHIN THIS LABEL.

This product, a water soluble liquid, mixes readily with water to be applied as a foliar spray for the control or destruction of most herbaceous plants. It may be applied through most standard industrial or field-type sprayers after dilution and thorough mixing with water in accordance with label instructions.

This product moves through the plant from the point of foliage contact to and into the root system. Visible effects on most annual weeds occur within 2 to 4 days but on most perennial weeds may not occur for 7 days or more. Extremely cool or cloudy weather following treatment may slow down activity of this product and delay visual effects of control. Visible effects are a gradual wilting and yellowing of the plant which advances to complete browning of aboveground growth and deterioration of underground plant parts.

Unless otherwise specified on this label, delay application until vegetation has emerged and reached the stages described for control of such vegetation under the "WEEDS CONTROLLED" section of this label. Unemerged plants arising from unattached underground rhizomes or root stocks of perennials will not be affected by the spray herbicide and will continue to grow. For this reason, best control of most perennial weeds is obtained when treatment is made at late growth stages approaching maturity.

Always use the higher rate of this product per acre within the recommended range when (1) weed growth is heavy or dense, or (2) weeds are growing in an undisturbed (noncultivated) area.

Do not treat weeds under poor growing conditions such as drought stress, disease or insect damage, as reduced weed control may result. Reduced results control may also occur when treating weeds heavily covered with dust.

This product is recommended for control of emerged weeds prior to establishment of labeled crops. Large amounts of green or decaying vegetation left standing or incorporated into the seedbed may enhance the development of disease in newly planted crops. This may result in poor emergence and/or stands, especially under cool and/or wet conditions.

Spraying early to control young weeds before dense stands develop or light cultivation to assist weed decay will favor preparation of suitable seedbeds.

In reduced tillage and no-till systems, ensure good seed to soil contact and proper seeding depth.

Reduced control may result when applications are made to annual or perennial weeds that have been mowed, grazed, or cut, and have not been allowed to regrow to the recommended stage for treatment.

Rainfall or irrigation occurring within 6 hours after application may reduce effectiveness. Heavy rainfall or irrigation within 2 hours after application may wash the chemical off the foliage and a repeat treatment may be required.

This product does not provide residual weed control. For subsequent residual weed control, follow a label-approved herbicide program. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

Buyer and all users are responsible for all loss or damage in connection with the use or handling of mixtures of this product with herbicides or other materials that are not expressly recommended in this labeling. Mixing this product with herbicides or other materials not recommended on this label may result in reduced performance.

For best results, spray coverage should be uniform and complete. Do not spray weed foliage to the point of runoff.

Keep people and pets off treated areas until spray solution has dried to prevent transfer of this product onto desirable vegetation.

ATTENTION: AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS.

Do not allow the herbicide solution to mist, drip, drift, or splash onto desirable vegetation since minute quantities of this herbicide can cause severe damage or destruction to the crop, plants, or other areas on which treatment was not intended. The likelihood of injury occurring from the use of this product is greatest when winds are gusty or in excess of 5 miles per hour or when other conditions, including lesser wind velocities, will allow spray drift to occur. When spraying, avoid combinations of pressure and nozzle type that will result in splatter or fine particles (mist) which are likely to drift. AVOID APPLYING AT EXCESSIVE SPEED OR PRESSURE.

NOTE: Use of this product in any manner not consistent with this label may result in injury to persons, animals, crops, or other unintended consequences. Keep container closed to prevent spills and contamination.

---

#### MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS

---

APPLY THESE SPRAY SOLUTIONS IN PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING DESIRED VOLUMES. DO NOT APPLY UNDER WHEN WIND OR OTHER CONDITIONS WHICH ALLOW FAVOR DRIFT TO OCCUR. HAND GUN APPLICATIONS SHOULD BE PROPERLY DIRECTED TO AVOID SPRAYING DESIRABLE PLANTS. NOTE: REDUCED RESULTS MAY OCCUR IF WATER

CONTAINING SOIL IS USED, ~~such as~~ SUCH AS WATER FROM PONDS AND UNLINED DITCHES.

### MIXING

This product mixes readily with water. Mix spray solutions of this product as follows: Fill the mixing or spray tank with the required amount of water. Add the ~~proper~~ recommended amount of this product (see "DIRECTIONS FOR USE" and "WEEDS CONTROLLED" sections of this label) near the end of the filling process and mix well. Remove hose from tank immediately after filling to avoid siphoning back into the carrier source. During mixing and application, foaming of the spray solution may occur. To prevent or minimize foam, avoid the use of mechanical agitators, place the filling hose below the surface of the spray solution, terminate by-pass and return lines at the bottom of the tank and, if needed, use an approved anti-foam or defoaming agent.

### TANK MIXTURES

Always predetermine the compatibility of labeled tank mixtures of this herbicide with water carrier by mixing small proportional quantities in advance.

Mix labeled tank mixtures of this product with water as follows:

1. Place a 20 to 35 mesh screen or wetting basket over filling port.
2. Through the screen, fill the sprayer tank one-half full with water and start agitation.
3. If a wettable powder is used, make a slurry with the water carrier, and add it SLOWLY through the screen into the tank. Continue agitation.
4. If a flowable formulation is used, premix one part flowable with one part water. Add diluted mixture SLOWLY through the screen into the tank. Continue agitation.
5. If an emulsifiable concentrate formulation is used, premix one part emulsifiable concentrate with two parts water. Add diluted mixture slowly through the screen into the tank. Continue agitation.
6. Continue filling the sprayer tank with water and add the required amount of this product near the end of the filling process.
7. Where nonionic surfactant is recommended, add this to the spray tank before completing the filling process.
8. Add individual formulations to the spray tank as follows: wettable powder, flowable, emulsifiable concentrate, drift control additive, water soluble liquid followed by surfactant.

Maintain good agitation at all times until the contents of the tank are sprayed. If the spray mixture is allowed to settle, thorough agitation is required to resuspend the mixture before spraying is resumed.

Keep by-pass line on or near bottom of tank to minimize foaming. Screen size in nozzle or line strainers should be no finer than 50 mesh. Carefully select proper nozzle to avoid spraying a fine mist. For best results with conventional ground application equipment, use flat fan nozzles.

Clean sprayer and parts immediately after using this product by thoroughly flushing with water.

---

## ADDITIVES

---

### SURFACTANTS

Nonionic surfactants which have at least 80 70 percent active ingredient and are labeled for use with herbicides may be used. Do not reduce rates of this herbicide when adding surfactant. When adding additional surfactant or when label instructions require the use of additional surfactant, use 0.5 percent surfactant concentration (2 quarts per 100 gallons of spray solution). Read and carefully observe surfactant cautionary statements and other information appearing on the surfactant label.

### AMMONIUM SULFATE

*this product* The addition of 1 to 2 percent dry ammonium sulfate by weight (or liquid equivalent), may increase the performance of ~~Roundup RT herbicide~~ this product in tank mixtures on annual weeds. Add 8.5 to 17 pounds of dry ammonium sulfate per 100 gallons of spray solution. The improvement in performance may be apparent where environmental stress is a concern. Use the higher rate of ammonium sulfate with ~~Roundup RT~~ when treating large or dense populations of annual weeds. Low-quality ammonium sulfate may contain material that will not readily dissolve which could result in nozzle-tip plugging. To determine quality, perform a jar test by adding 1/3 cup of ammonium sulfate to 1 gallon of water and agitate for 1 minute. If undissolved sediment is observed, predissolve the dry additive in water and filter prior to addition to the spray tank. If ammonium sulfate is added directly to the spray tank, add slowly with agitation. Adding too quickly may clog outlet lines. Ensure that ammonium sulfate is completely dissolved in the spray tank before adding herbicides. Thoroughly rinse the spray system with clean water after use to reduce corrosion. Observe all precautionary statements on the ammonium sulfate product labels.

NOTE: The use of ammonium sulfate as an additive does not preclude the need for additional surfactant. Do not use herbicide rates lower than recommended in this label.

~~"Banvel is a trademark of Sandoz, Inc."~~

## APPLICATION EQUIPMENT AND TECHNIQUES

Do not apply this product through any type of irrigation system.

This product may be applied using either aerial, conventional ground or hooded spray equipment. Use extreme care to avoid misting or drifting of herbicide solution onto foliage, green stems or fruit of desirable crops, trees, or plants during both growing and dormant periods, since even very small quantities of spray can cause severe plant injury.

**GROUND APPLICATION:** Apply recommended rates of this product in 3 to 10 gallons of water per acre as a broadcast spray. For optimum spray distribution and coverage, use flat fan or low-volume nozzles. When using flood nozzles, space them no more than 40 inches apart and ensure double overlap of spray pattern. Refer to the manufacturer's recommendations for correct pressure and nozzle height above the target canopy. Avoid pressure and nozzles which produce fine droplets or mist.

Use appropriate marking devices to ensure uniform spray coverage and best results from the herbicide.

**AERIAL APPLICATION:** Apply the recommended rates of this product in 3 to 5 gallons of water per acre as a broadcast spray. DO NOT APPLY DURING INVERSION CONDITIONS, WHEN WINDS ARE GUSTY, OR UNDER ANY OTHER CONDITION WHICH ~~WILL ALLOW~~ FAVORS DRIFT. DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT WAS NOT INTENDED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

Coarse sprays are less likely to drift; therefore, do not use nozzles or nozzle configurations which dispense spray as fine spray droplets. Do not angle nozzles forward into the airstream and do not increase spray volume by increasing nozzle pressure.

### SPRAYER CLEANUP

CLEAN THE ENTIRE SPRAYER AFTER APPLICATION OF THIS PRODUCT. Failure to clean the sprayer thoroughly may result in injury to desirable crops which are subsequently sprayed. First, add clean water to the tank and thoroughly rinse the entire sprayer system. Secondly, fill the tank with water and ammonia. Add 1 quart of household ammonia per 25 gallons of water. Pump enough solution through the hoses, boom and nozzles to fill these parts completely. Then fill the tank, close and leave for 24 hours before draining and rinsing thoroughly with water.

Application or use of other agricultural chemicals with the equipment used for this product may result in injury to desirable vegetation.

Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove residues of this product accumulated during spraying or from spills. PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE

305

FAILURE OF THE PART. LANDING GEAR ARE MOST SUSCEPTIBLE. The maintenance of an organic coating (paint) which meets aerospace specification MIL-C-38413 may prevent corrosion.

---

### WEEDS CONTROLLED

---

This herbicide controls many annual and perennial grasses and broadleaf weeds.

#### ANNUAL WEEDS

- Add a nonionic surfactant at a rate of 0.5 percent by total spray volume.
- Apply to actively growing grass and broadleaf weeds.
- Allow at least 3 days after treatment before tillage.
- For maximum agronomic benefit, apply when weeds are 6 inches or less in height.
- To prevent seed production, applications should be made prior to seedhead formation.
- This product does not provide residual control; therefore, delay application until maximum weed emergence. Repeat treatments may be necessary to control later germinating weeds.
- Do not use these rates for weeds that have been mowed, grazed or cut, unless weed regrowth has occurred and weeds are vigorously growing.
- Refer to the "TANK MIXTURES" portion of this section for control of additional broadleaf weeds.

---

#### RECOMMENDED RATES AND WEEDS CONTROLLED

---

| ANNUAL<br>WEED SPECIES                         | MAXIMUM<br>HEIGHT/<br>GROWTH<br>STAGE | RATE<br>PER<br>ACRE**<br>(FLUID OUNCES) |
|--|---------------------------------------|---|
| Foxtail<br><i>Setaria spp.</i>                 | 12"                                   | 8 oz.                                   |
| Barnyardgrass<br><i>Echinochloa crus-galli</i> | 6"                                    | 12 oz.                                  |
| Bluegrass, annual<br><i>Poa annua</i>          |                                       |   |
| Brome, downy*<br><i>Bromus tectorum</i>        |                                       |   |



Chickweed, jagged  
*Holosteum umbellatum*

Mustard, blue  
*Chorispora tenella*

Mustard, tansy  
*Descurainia pinnata*

Mustard, tumble  
*Sisymbrium altissimum*

Mustard, wild  
*Sinapis arvensis*

---

Barley  
*Hordeum vulgare* 12" 12 oz.

Rye  
*Secale cereale*

Sandbur, field  
*Cenchrus spp.*

Shattercane  
*Sorghum bicolor*

Stinkgrass  
*Eragrostis cilianensis*

---

Wheat  
*Triticum aestivum* 18" 12 oz.

---

Morningglory  
*Ipomea spp.* 3" 16 oz.

---

Bluegrass, bulbous  
*Poa bulbosa* 6" 16 oz.

Cheat  
*Bromus secalinus*

Chickweed, mouseear  
*Cerastium vulgatum*

Corn, volunteer  
*Zea mays*

Groundsel, common  
*Senecio vulgaris*

Goatgrass, jointed  
*Aegilops cylindrica*

Horseweed/Marestail  
*Conyza canadensis*

Pennycress, field;  
Fanweed  
*Thlaspi arvense*

Rocket, London  
*Sisymbrium irio*

Ryegrass, Italian  
*Lolium multiflorum*

Shepherdspurse  
*Capsella bursa-pastoris*

Spurge, annual  
*Euphorbia* spp.

---

|                        |     |        |
|------------------------|-----|--------|
| Buttercup              |     |        |
| <i>Ranunculus</i> spp. | 12" | 16 oz. |

Cocklebur  
*Xanthium strumarium*

Crabgrass  
*Digitaria* spp.

Dwarfdandelion  
*Krigia cespitosa*

Falseflax, smallseed  
*Camelina microcarpa*

~~Foxtail, Carolina~~  
~~*Alopecurus carolinianus*~~

Johnsongrass, seedling  
*Sorghum halepense*

Lambsquarters, common  
*Chenopodium album*

Oats, wild  
*Avena fatua*

Panicum, fall  
*Panicum dichotomiflorum*

Panicum, Texas  
*Panicum texanum*

Pigweed, redroot  
*Amaranthus retroflexus*

Pigweed, smooth  
*Amaranthus hybridus*

Witchgrass  
*Panicum capillare*

|                                     |     |        |
|-------------------------------------|-----|--------|
| <del>Signalgrass, broadleaf</del>   |     |        |
| <del>Brachiaria platyphylla</del>   | 6"  | 24 oz. |
| <del>Teaweed</del>                  |     |        |
| <del>Sida spinosa</del>             | 3"  | 32 oz. |
| <del>Eveningprimrose, cutleaf</del> |     |        |
| <del>Oenothera laciniata</del>      | 12" | 32 oz. |
| <del>Geranium, Carolina</del>       |     |        |
| <del>Geranium carolinianum</del>    |     |        |
| <del>Goosegrass</del>               |     |        |
| <del>Eleusine indica</del>          |     |        |
| <del>Pusley, Florida</del>          | 12" | 32 oz. |
| <del>Richardia scabra</del>         |     |        |
| <del>Sicklepod</del>                |     |        |
| <del>Cassia obtusifolia</del>       |     |        |
| <del>Spanishneedles</del>           |     |        |
| <del>Bidens bipinnata</del>         |     |        |
| <del>Filaree</del>                  |     |        |
| <del>Erodium spp.</del>             | 12" | 48 oz. |

\* For control in no-till systems, use 16 fluid ounces per acre.

\*\* For those rates less than 32 fluid ounces per acre, this product at rates up to 32 fluid ounces per acre may be used where heavy weed densities exist.

#### FALLOW AND REDUCED TILLAGE SYSTEMS

Use this product in fallow and reduced tillage systems for control of annual weeds prior to emergence of crops listed in this label. Refer to the "WEEDS CONTROLLED" section of this label for specific rates and instructions. This product may be applied using ground or aerial spray equipment. See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for instructions.

#### TANK MIXTURES

- MON-35085 RT plus BANVEL  
plus NONIONIC SURFACTANT ■
- MON-35085 RT plus 2,4-D  
plus NONIONIC SURFACTANT ■
- MON-35085 RT plus ATRAZINE or BLADEX<sup>®</sup>  
plus NONIONIC SURFACTANT ■

The addition of Banvel in a mixture with this product may provide short-term residual control of selected weed species. Some crop injury may occur in Banvel is applied within 45 days of planting. Refer to the Banvel and 2,4-D labels for cropping restrictions and other use instructions.

These recommended tank mixtures may be applied using ground or aerial spray equipment. Refer to the "WEEDS CONTROLLED" section of this label for specific rates and instructions.

This product plus Banvel or 2,4-D will control the annual grasses and broadleaf weeds previously listed for this product alone at the indicated heights (except 8 fluid ounces per acre applications), plus the following broadleaf weeds. For those weeds previously listed at 8 fluid ounces of this product alone per acre, use the 12 fluid ounces rate in these tank mixtures.

NOTE: Refer to the specific product labels for crop rotation restrictions and cautionary statements of all products used in tank mixtures. Some crop injury may occur if Banvel is applied within 45 days of planting. The addition of Banvel in a mixture with this product may provide short-term residual control of selected weed species.

Apply 12 to 16 fluid ounces of this product plus 0.25 pound a.i. of Banvel, or 0.5 pound a.e.i. of 2,4-D plus 0.5 to 1 percent nonionic surfactant by total spray volume per acre to control dense populations of the following annual broadleaf weeds when less than 6 inches in height:

**Kochia\***

*Kochia scoparia*

**Lambsquarters**

*Chenopodium album*

**Lettuce, prickly**

*Lactuca serriola*

**Pigweed, Redroot**

*Amaranthus retroflexus*

**Thistle, Russian**

*Salsola kali*

\*Controlled with Banvel tank mixture only.

This product plus atrazine or Bladex plus nonionic surfactant tank mixture provides postemergence control of listed annual weeds in fallow and reduced tillage systems. In addition, this tank mixture will provide soil residual control of weeds listed on the atrazine and Bladex label.

For use only in Colorado, Kansas, Nebraska, Oklahoma, Oregon, South Dakota, and Washington.

**ANNUAL WEEDS CONTROLLED**

Barnyardgrass  
*Echinochloa crus-galli*

Brome, downy  
*Bromus tectorum*

Foxtail, green  
*Setaria viridis*

Kochia\*  
*Kochia scoparia*

Lambsquarters  
*Chenopodium album*

Lettuce, prickly  
*Lactuca serriola*

Mustard, tansy  
*Descurainia pinnata*

Pigweed  
*Amaranthus spp.*

Sandbur, field  
*Cenchrus spp.*

Stinkgrass  
*Eragrostis cilianensis*

Thistle, Russian  
*Salsola kali*

Wheat  
*Triticum aestivum*

Witchgrass  
*Panicum capillare*

Apply 12 fluid ounces of this product with 1 pound or less of the active ingredient atrazine per acre or 16 fluid ounces of this product with 2 pounds or less of the active ingredient atrazine per acre, or 20 fluid ounces of this product with 1 to 3 pounds of the active ingredient atrazine per acre, plus 0.5 to 1 percent nonionic surfactant by total spray volume. Apply 16 fluid ounces of this product with 2.4 to 4 pounds of the active ingredient cyanazine in Bladex per acre plus 0.5 to 1 percent nonionic surfactant. Barnyardgrass will be suppressed at the 20 fluid ounces per acre rate and will require up to 26 fluid ounces per acre for control. In Oregon and Washington, do not exceed 1 pound of the active ingredient atrazine per acre. The addition of 2 percent dry ammonium sulfate by weight (or liquid equivalent) or 17 pounds per 100 gallons of water is recommended to increase the performance of this product plus atrazine or Bladex plus nonionic surfactant tank mixtures.

Consult the atrazine or Bladex labels (90 DF, 4L, 80W) for use rates, soil type, planting, cropping and other restrictions, as

well as other precautionary statements and use according to the most restrictive label.

These tank mixtures may be applied with ground or aerial equipment. See the "APPLICATION EQUIPMENT AND TECHNIQUES" section for instructions.

For ground application, apply in 3 to 10 gallons of water per acre.

For aerial application, apply 3 to 5 gallons of water per acre.

\*Bladex is a trademark of E. I. duPont de Nemours and Company.

#### POSTHARVEST APPLICATIONS

This product will provide control of existing weeds following grain harvest. Weeds should be allowed to regrow after damage incurred during harvest operations, and to recover from environmental stress, before application of this product. Weeds should be treated prior to the heading stage of annual grasses, if possible, and before broadleaf weeds exceed 24 inches in height. Nonionic surfactant should be added at 0.5 ~~to~~ percent by total spray volume. Use of ammonium sulfate is recommended and may improve performance on annual weeds.

Apply 12 fluid ounces of this product per acre plus nonionic surfactant to control downy brome, green foxtail, stinkgrass and volunteer wheat.

To control kochia, lambsquarters, mustard, pigweed and Russian thistle, apply 16 fluid ounces of this product plus 0.25 pounds a.i. of Banvel or 0.5 pounds a.e. of 2,4-D plus nonionic surfactant per acre.

Apply 20 fluid ounces of this product per acre plus nonionic surfactant to control barnyardgrass, sandbur, sunflower, and witchgrass. The Addition of 0.25 pound a.i. of Banvel or 0.5 pound a.e. of 2,4-D plus nonionic surfactant to 20 fluid ounces of this product will control prickly lettuce.

#### ECOFARMING SYSTEMS

The Ecofarming System consists of the following rotation: winter wheat, corn/sorghum, ecofallow.

Use the following tank mixtures for control of emerged annual weeds before planting corn or sorghum in the Ecofarming System.

MON-35085 RT at 16 to 20 fluid ounces per acre  
plus  
2,4-D at 0.375 to 0.5 pound a.i. per acre  
plus  
ATRAZINE at 0.75 to 1 pound a.i. per acre  
plus  
LASSO® at 2.5 to 3 quarts per acre

Add a nonionic surfactant at 0.5 percent by total spray volume.

312-

The above tank mixture should be applied in 28-0-0 or 32-0-0 liquid fertilizer carrier at 20 to 30 gallons per acre. The liquid fertilizer may be diluted with water to achieve the proper carrier volume.

**WEEDS CONTROLLED** -- The following weeds, up to a maximum height of 4 inches, will be controlled: ~~up to a maximum height of 4 inches.~~

**Brome, downy**

*Bromus tectorum*

**Cheat**

*Bromus secalinus*

**Foxtail, green**

*Setaria viridis*

**Foxtail, yellow**

*Setaria lutescens*

**Kochia\***

*Kochia scoparia*

**Lettuce, prickly**

*Lactuca serriola*

**Pigweed, redroot**

*Amaranthus retroflexus*

**Thistle, Russian**

*Salsola kali*

**Wheat, volunteer**

*Triticum aestivum*

\*For improved control of kochia, add 4 fluid ounces per acre (0.125 pound a.i. per acre) of Banvel to the above tank mixture.

Risk of crop injury from 2,4-D or Banvel can be reduced by applying this treatment 7 to 14 days before planting.

Refer to the Lasso label booklet for Lasso herbicide for preemergence weed control achieved by this tank mixture.

Refer to the specific product labels for crop rotation restrictions and cautionary statements for all products used in these tank mixtures.

©Lasso is a registered trademark of Monsanto Company.

**AID TO TILLAGE**

This product used in conjunction with preplant and conventional fallow tillage practices will provide control of downy brome, volunteer wheat, tansy mustard and foxtail.

Apply 8 fluid ounces per acre (~~1 1/2 pint~~) of this product plus 0.5 to ~~1~~ percent nonionic surfactant by total spray volume as a broadcast spray in 3 to 10 gallons of water per acre.

For ground application, apply in 3 to 10 gallons of water per acre. For aerial applications, apply in 3 to 5 gallons of water per acre. Do not mix with residual herbicides.

Application of this product should be made when weeds are actively growing and before weeds are greater than 6 inches tall. Application must be followed by conventional tillage practices before regrowth of the treated plants occurs. Allow at least one day after application before tillage. Tillage must occur no later than 15 days following application.

This product does not provide residual weed control. Repeat treatments may be necessary to control subsequent germinating weeds.

Do not treat weeds under poor growing conditions such as drought stress, or disease or insect damage as reduced weed control may result. Reduced results also may occur when treating weeds heavily covered with dust, or when straw canopy covers the weeds.

#### PERENNIAL WEEDS

Apply this product as follows to control or destroy most perennial weeds:

NOTE: If weeds have been mowed or tilled, do not treat until plants have resumed active growth and ~~are at~~ have reached the recommended stages of growth. Repeat treatments may be necessary to control weeds regenerating from underground parts or seed. Repeat treatments must be made prior to crop emergence.

The addition of 1 to 2 percent dry ammonium sulfate by weight or 8.5 to 17 pounds per 100 gallons of water may increase the performance of this herbicide on perennial weeds. The improvement in performance may be apparent where environmental stress is a concern. Refer to the "Mixing, Additives and Application Instructions" section of this label.

When applied as recommended under the conditions described, this product will CONTROL the following perennial weeds:

##### Alfalfa

*Medicago sativa*

##### Johnsongrass

*Sorghum halepense*

##### Nightshade, silverleaf

*Solanum elaeagnifolium*

##### Quackgrass

*Agropyron repens*



Ryegrass, perennial  
*Lolium perenne*

Spurge, leafy  
*Euphorbia esula*

Thistle, Canada  
*Cirsium arvense*

**\*Partial Control**

**Johnsongrass/Ryegrass, perennial**—Apply 1 to 3 quarts of this product per acre. In annual cropping systems, apply 1 to 2 quarts of this product per acre. Apply 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 5 to 10 gallons of water per acre. Use 2 quarts of this product when applying 10 to 40 gallons of water per acre. In noncrop or areas where annual tillage (no-till), is not performed, apply 2 to 3 quarts of this product in 10 to 40 gallons of water per acre. For best results, apply to actively growing plants when most have reached the boot-to-head stage of growth. Allow 7 or more days after application before tillage. Do not tank-mix with residual herbicides when using the 1 quart per acre rate. See **"DIRECTIONS FOR USE"** and **"MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS"** sections of this label for labeled uses and specific application instructions.

For burndown of contacted vegetation, apply 1 pint per acre plus 0.5 to 1 percent nonionic surfactant in 5 to 10 gallons of water per acre before the plants reach a height of 12 inches. For this use, allow at least 3 days after treatment before tillage.

**Quackgrass—In Annual Cropping Systems, or in Pastures and Sods Followed by Deep Tillage:** Apply 1 to 2 quarts of this product per acre. For the one quart rate, apply 0.5 to 1 percent nonionic surfactant by total spray volume in 5 to 10 gallons of water per acre. For the 2 quart rate, apply in 10 to 40 gallons of water per acre. Do not tank-mix with residual herbicides when using the 1 quart rate. Spray when quackgrass is 6 to 12 inches high and actively growing. Do not till between harvest and fall applications or in the fall or spring prior to spring application. Allow 3 or more days after application before tillage. In pastures or sods, for best results, use a moldboard plow.

**Quackgrass—Pasture or Sod or Other Noncrop Areas Where Deep Tillage is Not Planned Following Application:** Apply 2 to 3 quarts in 10 to 40 gallons of water per acre. Spray when the quackgrass is greater than 8 inches tall and actively growing. Do not till between harvest and fall application or in the fall or spring prior to spring application. Allow 3 or more days after application before tillage.

See **"DIRECTIONS FOR USE"** and **"MIXING, ADDITIVES and APPLICATIONS INSTRUCTIONS"** sections of this pamphlet for labeled uses and specific application instructions.

**Spurge, leafy**—For control suppression, apply 16 fluid ounces of this product plus 16 ounces of 2,4-D (0.5 pound a.i. of 2,4-D per

315

acre) plus 0.5 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre in the late summer or fall. Apply when plants are actively growing. If mowing has occurred prior to treatment, apply when most of the plants are 12 inches tall. Allow 7 or more days after application before tillage.

**Thistle, Canada**—Apply 2 to 3 quarts of this product per acre. Apply to actively growing thistles when most are at or beyond the bud stage of growth. After harvest, mowing or tillage in the late summer or fall, allow at least 4 weeks for initiation of active growth and rosette development prior to the application of this product. Fall treatments must be applied before a killing frost. Allow 3 or more days after application before tillage. See ~~"DIRECTIONS FOR USE" and "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS"~~ sections of this pamphlet for labeled uses and specific application instructions.

For suppression of Canada thistle, apply 1 quart per acre of this product plus 0.5 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre in the late summer or fall after harvest, mowing or tillage. Allow rosette regrowth to a minimum of 6 inches in diameter before treating. Applications can be made as long as leaves are still green and plants are actively growing at the time of application. Allow 3 or more days after application before tillage.

**Other perennials listed on this label**—Apply 3 to 5 quarts of this product per acre. Apply when actively growing and when most have reached early head or early bud stage of growth. Allow 7 or more days after application before tillage.

See "DIRECTIONS FOR USE" and "MIXING, ADDITIVES, AND APPLICATION INSTRUCTIONS" sections of this pamphlet for labeled uses and specific application instructions.

#### TANK MIXTURES

When applied as directed under the conditions described, this product plus Banvel or 2,4-D will SUPPRESS or CONTROL the following perennial broadleaf weed:

**Bindweed, field**  
*Convolvulus arvensis*

For suppression, apply 16 fluid ounces of this product plus 0.5 lb a.i. of 2,4-D or 0.25 lb a.i. of Banvel, plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications. Applications should be delayed until maximum emergence has occurred and when vines are between 6 to 18 inches in length. These tank mixtures may be applied using aerial application equipment in fallow and reduced tillage systems only.

For control, apply 2 quarts of this product plus 0.5 pound a.i. of Banvel in 3 to 20 gallons of water per acre. At these rates, apply using ground application equipment only.

## CROPPING SYSTEMS

This product controls annual and perennial weeds listed on this label, prior to the emergence of the crops listed below.

See "GENERAL INFORMATION" and "APPLICATION EQUIPMENT AND TECHNIQUES" sections of this label for essential product performance information.

Repeat treatments may be necessary to control weeds regenerating from underground parts or seed. Except as otherwise specified on this label, repeat treatments must be made before the crop emerges, in accordance with the instructions of this label.

Except as otherwise specified in a crop section of this label, the combined total of all treatments must not exceed 8 quarts per acre of this product per year.

Do not plant subsequent crops other than those on this label for one year 30 days following application.

~~For other cropping systems, except following spot treatment in forage grasses and legumes, do not harvest or feed treated crops vegetation for 8 weeks after following application. Allow 14 days following spot treatment or selective equipment use allow 14 days before grazing domestic livestock or harvesting forage grasses and legumes.~~

~~This product controls annual and perennial weeds listed on this label, prior to the emergence of these crops.~~

ALFALFA\*  
BARLEY\*  
BEANS (All)  
BEETS (Red, Sugar)  
CARROT  
CORN (All)\*  
COTTON\*  
FORAGE GRASSES\*  
FORAGE LEGUMES\*  
LENTILS  
OATS\*  
ONION  
PEAS (All)  
POTATO (Irish, sweet)  
RADISH  
SORGHUM (Milo)\*  
SOYBEANS\*  
WHEAT\*

\*Spot treatments may be applied in these crops.

Spot Treatment (Only those crops with "\*" can be spot treated)-Applications in growing crops must be made prior to

heading of small grains and milo, initial pod set in soybeans, silking of corn, boll opening on cotton.

For forage grasses and forage legumes see "Spot Treatment" in the "Pastures" section of "Cropping Systems" in this label.

For dilution and rates of application using boom or hand-held equipment, see "Mixing, Additives and Application Instructions" and "Weeds Controlled" sections of this label.

NOTE: FOR FORAGE GRASSES AND FORAGE LEGUMES, NO MORE THAN ONE-TENTH OF ANY ACRE SHOULD BE TREATED AT ONE TIME. FOR ALL OTHER CROPS, DO NOT TREAT MORE THAN 10 PERCENT OF THE TOTAL FIELD AREA TO BE HARVESTED.

THE CROP RECEIVING SPRAY IN TREATED AREA WILL BE KILLED. TAKE CARE TO AVOID DRIFT OR SPRAY OUTSIDE TARGET AREA FOR THE SAME REASON.

**Selective Equipment**—This product may be applied through recirculating sprayers, shielded applicators, or wiper applicators in cotton and soybeans. Shielded and wiper applicators may also be used in tree crops and grapes. Wiper applicators may be used in rutabagas, forage grasses and forage legumes, including pasture sites and sorghum milo.

See the "Selective Equipment" part of the "Application Equipment and Techniques" section of this label for information on proper use and calibration of this equipment.

Allow at least the following time intervals between application and harvest:

Cotton, Soybeans .....7 days

Apples, Avocado, Cherry,  
Grapes, Pear .....14 days

Stone Fruit .....17 days

Sorghum (milo)\* .....40 days

\* Do not use roller applicators. Do not feed or graze treated milo fodder. Do not ensile treated vegetation.

---

#### ASPARAGUS

---

When applied as directed for "Cropping Systems" under the conditions described, this product controls weeds listed on this label in asparagus.

For specific rates of applications and instructions for control of various annual and perennial weeds, see the "Weeds Controlled" section of this label.

**Prior to Crop Emergence**—Apply this product prior to crop emergence for the control of emerged labeled annual and perennial weeds. DO NOT APPLY WITHIN A WEEK BEFORE THE FIRST SPEARS EMERGE.

**Spot Treatment**—Apply this product immediately after cutting, but prior to the emergence of new spears. Do not treat more than 10 percent of the total field area to be harvested. Do not harvest within 5 days of treatment.

**Postharvest**—Apply this product after the last harvest and all spears have been removed. If spears are allowed to regrow, delay application until ferns have developed. Delayed treatments should be applied as directed or shielded spray in order to avoid contact of the spray with ferns, stems or spears. Direct contact of the spray with the asparagus may result in serious crop injury.

NOTE: Select and use recommended types of spray equipment for postemergence postharvest applications. A directed spray is any application where the spray pattern is aligned in such a way as to avoid direct contact of the spray with the crop. A shielded spray is any application where a physical barrier is positioned and maintained between the spray and the crop to prevent contact of spray with the crop.

---

#### **TREE AND VINE CROPS**

---

~~For use only in Idaho, Utah and Washington.~~

~~This product is recommended for weed control in established groves, vineyards, or orchards, or for site preparation prior to transplanting crops listed in this section. Applications may be made with boom equipment, CDA, shielded sprayers, hand held and high volume wands, lances, or orchard guns, or with wiper applicator equipment, except as directed in this section. See the "Application Equipment and Techniques" section of this label for specific information on use of equipment.~~

~~When applying Roundup RT alone, refer to the "Weeds Controlled" section of this label for recommended rates to be used.~~

#### **NOTE**

~~Repeat treatments may be necessary to control weeds originating from underground parts of untreated weeds or from seeds. This product does not provide residual weed control. For subsequent weed control, follow a program using residual herbicides or use repeated applications of this product. Do not apply more than 10.6 quarts of this product per acre per year.~~

~~EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF HERBICIDE SOLUTION, SPRAY, DRIFT, OR MIST WITH FOLIAGE OR GREEN BARK OF TRUNK, BRANCHES, SUCKERS, FRUIT, OR OTHER PARTS OF TREES OR VINES. CONTACT OF THIS PRODUCT WITH OTHER THAN MATURED BROWN BARK CAN RESULT IN SERIOUS CROP DAMAGE.~~

~~AVOID PAINTING OUT STUMPS WITH THIS PRODUCT AS INJURY RESULTING FROM ROOT GRAFTING MAY OCCUR IN ADJACENT TREES.~~

~~Reduced control may result when applications are made to annual or perennial weeds that have been mowed, grazed or cut and have not been allowed to regrow to the recommended stage for treatment.~~

~~For specific rates of applications and instructions, see the "Weeds Controlled" section of this label.~~

---

~~TANK MIXTURES~~  
~~TREE AND VINE CROPS~~

~~When applied as a tank mixture, this product provides control of the emerged annual weeds and partial control of the emerged perennial weeds listed in this label. The following residual herbicides will provide preemergence control of those weeds listed in the individual product labels.~~

~~ROUNDUP® RT plus GOAL™ 1.6E~~

~~ROUNDUP RT plus KARMEX™ WP~~

~~ROUNDUP RT plus KROVAR™ I~~

~~ROUNDUP RT plus KROVAR™ II~~

~~ROUNDUP RT plus SIMAZINE,  
CALIBER™ 90~~

~~ROUNDUP RT plus SIMAZINE 4L~~

~~ROUNDUP RT plus SIMAZINE 80W~~

~~ROUNDUP RT plus SOLICAM™ 80WP~~

~~ROUNDUP RT plus SURFLAN™ AS~~

~~ROUNDUP RT plus SURFLAN 75W~~

~~ROUNDUP RT plus SIMAZINE  
(80W, or 4L, or CALIBER 90)  
plus SURFLAN (AS or 75W)~~

~~ROUNDUP RT plus GOAL (1.6E)  
plus SURFLAN (AS or 75W)~~

~~ROUNDUP RT plus GOAL (1.6E)  
plus SURFLAN (AS or 75W)  
plus SIMAZINE (80W, 4L,  
or CALIBER 90)~~

~~When tank mixing with residual herbicides, add an agriculturally approved nonionic surfactant.~~

~~Do not apply these tank mixtures in Puerto Rico.~~

## ~~CONTROL OF EMERGED WEEDS~~

~~Annual Weeds~~ Apply 1 quart per acre of this product in these tank mixtures, when weeds are less than 12 inches tall. For weeds greater than 12 inches tall, apply 1.5 quarts per acre.

~~Perennial Weeds~~ For partial control of perennial weeds using these tank mixtures, apply 2 to 5 quarts per acre of this product. Follow the recommendations in the "Weeds Controlled" section of this label for stage of growth and rate of application for specific perennial weeds.

## ~~PREEMERGENCE WEED CONTROL~~

The following are the labeled rates for the recommended residual herbicides:

| <del>PRODUCT</del>              | <del>RATE/ACRE</del>         |
|---------------------------------|------------------------------|
| <del>Goal 1.6E</del>            | <del>1.25 to 5 qts.</del>    |
| <del>Karmex WP</del>            | <del>2 to 8 lbs.</del>       |
| <del>Krevar I</del>             | <del>2 to 8 lbs.</del>       |
| <del>Krevar II</del>            | <del>2 to 8 lbs.</del>       |
| <del>Simazine, Caliber 90</del> | <del>1.1 to 10.6 lbs.</del>  |
| <del>Simazine, 80W</del>        | <del>1 1/4 to 12 lbs.</del>  |
| <del>Simazine 4L</del>          | <del>2 to 9.6 qts.</del>     |
| <del>Solicam 80WP</del>         | <del>2 1/4 to 5 lbs.</del>   |
| <del>Surflan AS</del>           | <del>2 to 4 qts.</del>       |
| <del>Surflan 75W</del>          | <del>22/3 to 51/3 lbs.</del> |

~~NOTE: These residual herbicides may provide post-emergence activity on certain annual weed species.~~

~~Refer to the individual product labels for specific crops, rates, geographical restrictions and precautionary statements.~~

~~Read and carefully observe the label claims, cautionary statements, rates and all other information on the labels of all products.~~

~~For specific rates of application and instructions see the "Weeds Controlled" section of this label.~~

## ~~ROUNDUP® RT plus GOAL~~

~~Roundup RT alone and Roundup RT plus Goal tank mixtures will control or suppress annual weeds listed below.~~

~~Apply the recommended rates plus 0.5 to 1 percent nonionic surfactant by spray volume in 3 to 10 gallons of water per acre. Apply when weeds are actively growing and less than 6 inches in height. If weeds are under drought stress, irrigate prior to application.~~

## ~~RECOMMENDED RATES AND WEEDS CONTROLLED~~

C - Control

S - Suppression

| WEEDS -<br>SPECIES | Roundup RT   |    |    | Roundup RT   |         |
|--------------------|--------------|----|----|--------------|---------|
|                    | rate         |    |    | +Goal        |         |
|                    | (fl oz/acre) |    |    | (fl oz/acre) |         |
|                    | 0            | 12 | 16 | 12           | 4 to 16 |

|                            |   |   |   |  |   |
|----------------------------|---|---|---|--|---|
| Bluegrass,<br>annual       | C | C | C |  | C |
| Barley                     | C | C | C |  | C |
| Cheeseweed,<br>common (3") | S | S | S |  | C |
| Rocket, London             | S | S | C |  | C |
| Shepherdspurse             | S | S | C |  | C |
| Chickweed                  | S | C | C |  | C |
| Fleabane,<br>flaxleaf      | S | C | C |  | C |
| Red Maids                  | S | C | C |  | C |

16 - 4 to 16

|                              |   |   |   |  |   |
|------------------------------|---|---|---|--|---|
| Barnyardgrass                | S | C | C |  | C |
| Cheeseweed,<br>common (3-6") | S | S | S |  | C |
| Crabgrass                    | S | S | C |  | C |
| Groundsel,<br>common         | S | S | C |  | C |
| Junglerice                   | S | S | C |  | C |
| Lambsquarters                | S | S | C |  | C |
| Marestail                    | S | C | C |  | C |
| Pigweed,<br>redroot          | S | S | C |  | C |
| Ryegrass,<br>common          | S | S | C |  | C |
| Sowthistle,<br>annual        | S | S | C |  | C |
| Purslane,<br>common          | S | C | C |  | C |
| Nettle,<br>stinging          | S | S | C |  | C |
| Flaree                       | S | S | S |  | S |

~~ROUNDUP® RT plus GOAL plus SIMAZINE/SURFLAN~~

~~This product plus Goal, applied alone or as a three-way or four-way with simazine and/or Surflan, will provide postemergence control of those weeds listed below when applied as recommended.~~

~~Refer to individual product labels for preemergence rates, weeds controlled, precautionary statements and other important information.~~

~~Apply these tank mixtures in 3 to 40 gallons of water. Add 0.5 to 1 percent nonionic surfactant by total spray volume to the spray solution.~~

322



## WEEDS CONTROLLED

| Weed Species         | Maximum Height (inches) | Roundup® RT + Goal (quarts/acre) |
|----------------------|-------------------------|----------------------------------|
| Barley, — wild       | 4                       | 0.5 to 1 + 0.5 to 5              |
| Bluegrass, — annual  | 4                       | 0.5 to 1 + 0.5 to 5              |
| Cheeseweed, — common | 4                       | 0.5 to 1 + 0.5 to 5              |
| Chickweed, — common  | 4                       | 0.5 to 1 + 0.5 to 5              |
| Flaxleaf, — fleabane | 4                       | 0.5 to 1 + 0.5 to 5              |
| Groundsel, — common  | 4                       | 0.5 to 1 + 0.5 to 5              |
| Marestail            | 4                       | 0.5 to 1 + 0.5 to 5              |
| Pineappleweed        | 4                       | 0.5 to 1 + 0.5 to 5              |
| Rocket, London       | 4                       | 0.5 to 1 + 0.5 to 5              |
| Shepherdspurse       | 4                       | 0.5 to 1 + 0.5 to 5              |
| Sowthistle, — annual | 4                       | 0.5 to 1 + 0.5 to 5              |
| Cheeseweed, — common | 12                      | 1 to 1.5 + 1 to 5                |
| Nettle, — stinging   | 12                      | 1 to 1.5 + 1 to 5                |
| Filaree              | 12                      | 1 to 1.5 + 1 to 5                |

®Goal is a trademark of Rohm and Haas Company.

®Sollicam is a trademark of Sandoz, Inc.

## TREE AND VINE CROPS

For use only in Idaho, Utah and Washington.

This product is recommended for weed control in established groves, vineyards, or orchards, or for site preparation prior to transplanting crops listed in this section. Applications may be made with boom equipment, CDA, shielded sprayers, hand-held and high-volume wands, lances, or orchard guns, or with wiper applicator equipment, except as directed in this section. See the "Application Equipment and Techniques" section of this label for specific information on use of equipment.

When applying this product, refer to the "Weeds Controlled" section of this label and to specific recommendations in this section for rates to be used.

### NOTE

Repeat treatments may be necessary to control weeds originating from underground parts of untreated weeds or from seeds. This

323

product does not provide residual weed control. For subsequent weed control, use repeated applications of this product. Do not apply more than 10.6 quarts of this product per acre per year.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF HERBICIDE SOLUTION, SPRAY, DRIFT, OR MIST WITH FOLIAGE OR GREEN BARK OF TRUNK, BRANCHES, SUCKERS, FRUIT, OR OTHER PARTS OF TREES OR VINES. CONTACT OF THIS PRODUCT WITH OTHER THAN MATURED BROWN BARK CAN RESULT IN SERIOUS CROP DAMAGE.

AVOID PAINTING OUT STUMPS WITH THIS PRODUCT AS INJURY RESULTING FROM ROOT GRAFTING MAY OCCUR IN ADJACENT TREES.

Reduced control may result when applications are made to annual or perennial weeds that have been mowed, grazed or cut and have not been allowed to regrow to the recommended stage for treatment.

For specific rates of applications and instructions, see the "Weeds Controlled" section of this label, and to specific recommendations which follow.

#### STRIPS

##### FOR ANNUAL AND PERENNIAL WEEDS IN STRIPS OF TREE AND VINE CROPS

##### TANK MIXTURES WITH RESIDUAL HERBICIDES

When applied as a tank mixture, this product provides control of the emerged annual weeds and control or suppression of emerged perennial weeds listed in this label. The following residual herbicides will provide preemergence control of those weeds listed in the individual product labels.

MON-35085 RT plus GOAL™ 1.6E

MON-35085 RT plus KARMEX™ DF

MON-35085 RT plus SIMAZINE,  
PRINCEP CALIBER™ 90

MON-35085 RT plus SIMAZINE 4L

MON-35085 RT plus SIMAZINE 80W

MON-35085 RT plus SOLICAM™ 80DF

MON-35085 RT plus SURFLAN™ AS

MON-35085 RT plus SURFLAN 75W

MON-35085 RT plus SIMAZINE  
(80W, or 4L, or PRINCEP CALIBER 90)  
plus SURFLAN (AS or 75W)

MON-35085 RT plus GOAL (1.6E)  
plus SURFLAN (AS or 75W)

■ MON-35085 RT plus GOAL (1.6E)  
plus SIMAZINE  
(80W, 0E 4L, or PRINCEP CALIBER 90) ■

■ MON-35085 RT plus GOAL (1.6E)  
plus SURFLAN (AS or 75W)  
plus SIMAZINE (80W, 4L,  
or PRINCEP CALIBER 90) ■

When tank-mixing with residual herbicides, add an agriculturally approved nonionic surfactant at 0.5 percent by volume of spray solution.

Refer to the individual product labels for specific crops, rates, geographical restrictions and precautionary statements.

Read and carefully observe the label claims, cautionary statements, rates and all other information on the labels of all products.

#### RECOMMENDED RATES

Annual Weeds - Apply 1 to 5 quarts per acre of this product in these tank mixtures. Use rates at the higher end of the recommended range when weeds are stressed, growing in dense populations or are greater than 12 inches tall.

Perennial Weeds - Apply 1 to 5 quarts per acre of this product in these tank mixtures to control or suppress perennial weeds. Follow the recommendations in the "Weeds Controlled" section of this label for stage of growth and application rates for specific perennial weeds.

■ MON-35085 RT plus GOAL plus SIMAZINE/SURFLAN ■

This product plus low rates of Goal in three-way or four-way mixtures with simazine and/or Surflan will provide postemergence control of the weeds listed below.

Refer to the individual simazine and Surflan labels for preemergence rates, weeds controlled, precautionary statements and other important information.

Apply these tank mixtures in 3 to 20 gallons of water. Add 0.5 percent nonionic surfactant by total spray volume to the spray solution.

Apply 1 to 5 quarts per acre of this product plus 4 to 48 ounces per acre of Goal plus labeled rates of simazine and/or Surflan to control the following weeds:

Barley, wild  
*Hordeum leporinum*

~~sequential application of 2 to 4 fluid ounces may be made approximately 45 days after the last application.~~

### Bermudagrass

~~For burndown, apply 1 to 2 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 20 gallons of water per acre. Use 1 quart of this product in 3 to 20 gallons of water per acre east of the Rocky Mountains. Use 1 to 2 quarts of this product in 3 to 10 gallons of water per acre west of the Rocky Mountains. Use this treatment only if reduction of the bermudagrass stand can be tolerated. When burndown is required prior to harvest, allow at least 21 days to ensure sufficient time for burndown to occur.~~

~~Suppression only (east of the Rocky Mountains) Apply 6 to 16 fluid ounces plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 20 gallons of water per acre no sooner than 1 to 2 weeks after full green-up. Mowing prior to application may occur provided a minimum height of 3 inches is maintained. Rates of 6 to 10 fluid ounces plus nonionic surfactant should be used in shaded conditions or where a lesser degree of suppression is desired. Sequential applications may be made when regrowth occurs and bermudagrass injury and stand reduction can be tolerated.~~

~~Suppression only (west of the Rocky Mountains) Apply 16 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre up to 6 inches in height and no sooner than 1 to 2 weeks after full green-up. Mowing prior to application may occur provided a minimum height of 3 inches is maintained. Sequential applications may be made when regrowth occurs and bermudagrass injury and stand reduction can be tolerated.~~

~~For suppression of Kentucky bluegrass covers, apply 6 fluid ounces of this product plus nonionic surfactant. Do not add ammonium sulfate.~~

~~For best results, mow cool season grass covers in the spring to even their height and apply the recommended rate of this product 3 to 4 days after mowing. Avoid treating cool season grass covers under poor growing conditions, such as drought stress (drip irrigation), disease or insect damage.~~

~~Apply 6 to 8 fluid ounces of this product per acre to suppress (chemically mow) perennial grass covers between tree rows in orchards.~~

~~For tall (coarse) fescue, fine fescue, orchardgrass or quackgrass covers use 8 fluid ounces per acre. For best suppression of these species add ammonium sulfate at 1.7 pounds per 10 gallons of spray solution.~~

~~For Kentucky bluegrass covers, use 6 fluid ounces per acre without ammonium sulfate.~~

Apply treatments in 20 gallons of water per acre to actively growing grass covers. Additional nonionic may be added at a rate of 0.5 percent of the total spray volume.

For best results, mow orchards in the spring and apply the appropriate rate of this product 3 to 4 days later. Do not treat grass covers under poor growing conditions such as drought stress, disease or insect damage as poor suppression may result.

Low rates will not adequately suppress broadleaf weeds such as dandelion or plantain. If broadleaf weeds make up more than 10 percent of the ground cover, mix this product with 1 quart of 2,4-D per acre which is labeled for orchard use.

---

### TREE CROPS

---

Pome Fruit\*: apple, pear.

Stone Fruit\*\*\*: apricots, cherries, nectarines, ~~olives~~, peaches, plums/prunes.

For cherries, any application equipment listed in this section may be used in all states.

Any application equipment listed in this section may be used in apricots, nectarines, peaches, and plums/prunes.

For peaches, remove suckers and low hanging limbs at least 10 days prior to application. Avoid applications near trees with recent pruning wounds or other mechanical injury. Apply only near trees which have been planted in the orchard for 2 or more years. EXTREME CARE MUST BE TAKEN TO ENSURE NO PART OF THE PEACH TREE IS CONTACTED.

### NOTE:

\* Allow a minimum of 14 days between last application and harvest.

\*\*\* Allow a minimum of 17 days between last application and harvest.

---

### VINE CROPS

---

Grapes\*: Any variety of table, wine, or raisin grape may be treated with any equipment listed in this section.

~~In the northeast and Great Lakes regions, applications must be made prior to the end of bloom stage of grapes to avoid injury.~~

\* Applications should not be made when green shoots, canes, or foliage are in the spray zone.

- \* Allow a minimum of 14 days between last application and harvest.

---

#### NONCROP USES

---

See "General Information" and "Mixing, Additives and Application Instructions" sections of this label for essential product performance information and the following "Noncrop" sections for specific recommended uses.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF SPRAY WITH FOLIAGE OF DESIRABLE TURFGRASSES, TREES, SHRUBS, OR OTHER DESIRABLE VEGETATION SINCE SEVERE DAMAGE OR DESTRUCTION MAY RESULT.

NOTE: If spraying areas adjacent to desirable plants, use a shield made of cardboard, sheet metal or plyboard while spraying to help prevent spray from contacting foliage of desirable plants.

Repeat treatments may be necessary to control weeds regenerating from underground parts or seeds.

This product does not provide residual weed control. For subsequent weed control, follow a label-approved herbicide program.

Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

---

#### FARMSTEAD WEED CONTROL

---

When applied as directed for "Noncrop Uses", under conditions described, this product controls undesirable vegetation listed on this label around farmstead building foundations, along and in fences, shelterbelts, ditch banks, dry ditches and for general nonselective farmstead weed control.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "Weeds Controlled" section of this label.

#### FARM DITCHES AND WATERWAYS

This product will suppress perennial grasses along farm ditches and diversion waterways. Apply this product at a rate of 6 to 8 fluid ounces per acre. Use 8 fluid ounces per acre when treating tall (coarse) fescue, fine fescue, orchardgrass or quackgrass covers. For best suppression of these species, add ammonium sulfate at a rate of 1.7 pounds per 10 gallons of spray solution.

Use 6 fluid ounces per acre without ammonium sulfate when treating Kentucky bluegrass.

Apply treatments in 10 to 20 gallons of spray solution per acre to actively growing perennial grass covers. For best spray distribution and coverage use flat fan nozzles.

Add a nonionic surfactant at a rate of 0.5 percent of the spray solution.

Where broadleaf weed control or suppression is desired, tank mix this product with an appropriate, labeled broadleaf weed herbicide.

This product is protected by  
U.S. Patent No. 3,799,758,  
U.S. Patent No. 4,405,531 and U.S. Patent No. 4,840,650.  
Other patents pending.

No license granted under any non-U.S. patent(s).

EPA Reg No. 524-445

|        |                  |
|--------|------------------|
| 1990-1 | 897.15-000.08/53 |
| 1991-1 | 898.15-000.01/53 |

---

In case of an emergency involving this product,  
Call Collect, day or night, (314) 694-4000.

---

©MONSANTO COMPANY 1990 1991

MONSANTO COMPANY  
AGRICULTURAL PRODUCTS  
ST. LOUIS, MISSOURI, 63167 U.S.A.

# Monsanto

Monsanto Company  
Suite 1100  
700 14th Street, N.W.  
Washington, D.C. 20005

January 22, 1991

Document Processing Center (APPL)  
Office of Pesticide Programs - H7504C  
U.S. Environmental Protection Agency  
1921 Jefferson Davis Highway  
Crystal Mall #2, Room 226A  
Arlington, Virginia 22202

5389509

Attention: Mr. Robert J. Taylor  
Product Manager (25)

Subject: Glyphosate: MON-35085  
Changes to Label  
EPA File Sym. 524-UUL

Dear Sir:

The labeling for MON-35085 (R.D. No. 1001) has been amended to include the changes cited in your letter of December 20, 1990. Specifically, these changes are as follows:

- (1) The signal word has been changed to "WARNING".
- (2) The precautionary statements have been revised to include "CAUSES SUBSTANTIAL BUT TEMPORARY EYE INJURY. HARMFUL IF INHALED. Do not get in eyes or breathe spray mist or get in or on clothing. Wear goggles, face shield or safety glasses. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse."
- (3) The first aid statements have been changed as follows: "IF IN EYES, hold eyelids open and flush with plenty of water. Get medical attention. IF INHALED, remove victim to fresh air. If not breathing, give artificial respiration, preferable mouth-to-mouth. Get medical attention. IF SWALLOWED, drink promptly a large quantity of milk, egg white or gelatin solution. If these are not available drink large quantities of water."

331

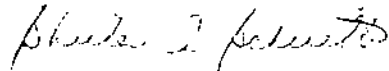


Get medical attention."

We ask the EPA to approve this submission as quickly as possible.

If you have any questions regarding this request, please contact Dr. Kevin Cannon or me.

Sincerely,



Sheila A. Schuette, Ph.D.  
Senior Registration Specialist  
(314) 694-7248

cc: R.P. Schneider  
K.F. Cannon  
Fred Groya  
I.C. O'Connor

# MON-35085

Herbicide by Monsanto

## Complete Directions for Use

EPA Reg. No. 524-XXX

AVOID CONTACT WITH FOLIAGE, GREEN STEMS, OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, SINCE SEVERE INJURY OR DESTRUCTION MAY RESULT.

This product has been approved for use in California except as stated otherwise on pages 122.

~~1990-1~~

~~897.10-005.16/53~~

Read each of these sections of this label for essential product performance information.

USE THESE CONVENIENT SECTION MARKERS.

### GENERAL INFORMATION

MIXING, ADDITIVES, AND APPLICATION  
INSTRUCTIONS

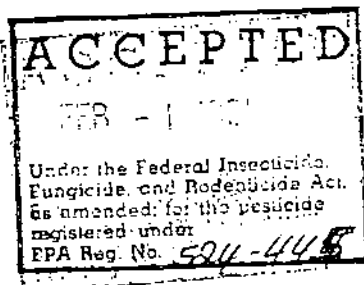
WEEDS CONTROLLED

NONCROP USES

CROPPING SYSTEMS

MINIMUM TILLAGE

TREE AND VINE CROPS



Read the entire label before using this product.

Use only according to label instructions.

Read "LIMIT OF WARRANTY AND LIABILITY" before buying or using. If terms are not acceptable, return at once unopened.

REFORMULATION IS PROHIBITED. SEE INDIVIDUAL CONTAINER LABEL FOR REPACKAGING LIMITATIONS.

### LIMIT OF WARRANTY AND LIABILITY

(CAUTION!, 7.7%, Sec.1)

1

(9/13/90)

01300131

333

(Not applicable to consumer applications applied by the homeowner for noncommercial purposes as permitted by the supplemental labeling for one-quart containers.)

This Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Complete Directions for Use label booklet ('Directions') when used in accordance with those Directions under the conditions described therein. NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

Buyer and all users shall promptly notify this Company of any claims whether based in contract, negligence, strict liability, other tort or otherwise.

Buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this Company, including, but not limited to, incompatibility with products other than those set forth in the Directions, application to or contact with desirable vegetation, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, application in any manner not explicitly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions, or the presence of products other than those set forth in the Directions in or on the soil, crop or treated vegetation.

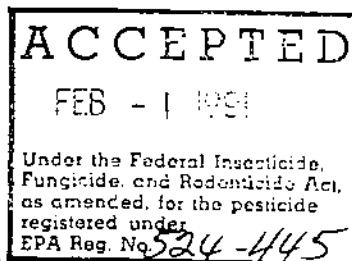
THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE LIMIT OF THE LIABILITY OF THIS COMPANY OR ANY OTHER SELLER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT (INCLUDING CLAIMS BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE) SHALL BE THE PURCHASE PRICE PAID BY THE USER OR BUYER FOR THE QUANTITY OF THIS PRODUCT INVOLVED, OR, AT THE ELECTION OF THIS COMPANY OR ANY OTHER SELLER, THE REPLACEMENT OF SUCH QUANTITY, OR, IF NOT ACQUIRED BY PURCHASE, REPLACEMENT OF SUCH QUANTITY. IN NO EVENT SHALL THIS COMPANY OR ANY OTHER SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES.

Buyer and all users are deemed to have accepted the terms of this LIMIT OF WARRANTY AND LIABILITY which may not be varied by any verbal or written agreement.

(INDEX PAGES)

(CAUTION!, 7.7%, Sec.1)

2



(9/13/90)

01400131

334

## PRECAUTIONARY STATEMENTS

---

Hazards to  
Humans and Domestic Animals

---

Keep out of reach of children.

### **WARNING!** **CAUTION!**

CAUSES EYE IRRITATION.  
HARMFUL IF SWALLOWED  
OR INHALED.  
~~MAY CAUSE SKIN IRRITATION.~~

~~Do not get in eyes, on skin or on clothing.~~

~~Avoid contact with eyes, skin or clothing.~~

Avoid breathing vapor or spray mist.

~~Remove contaminated clothing and wash contaminated clothing.~~

Wash thoroughly with soap and water after handling.

FIRST AID: IF IN EYES, ~~immediately flush eyes with plenty of water~~  
~~for at least 15 minutes.~~ Get medical attention.

~~IF ON SKIN, immediately flush with plenty of water. Remove~~  
~~contaminated clothing. Wash clothing before reuse.~~

~~IF INHALED, remove individual victim to fresh air. If not~~  
~~breathing, give artificial respiration, preferably mouth-to-~~  
~~mouth. Get medical attention if breathing difficulty develops.~~

IF SWALLOWED, this product will cause gastrointestinal tract  
irritation. Immediately dilute by swallowing water or milk. Get  
medical attention.

---

In case of an emergency involving this product, Call Collect, day  
or night, (314) 694-4000.

---

Environmental Hazards

Do not apply directly to water or wetland (swamps, bogs, marshes or potholes). Do not contaminate water when disposing of equipment washwaters.

---

#### Physical or Chemical Hazards

Spray solutions of this product should be mixed, stored and applied only in stainless steel, aluminum, fiberglass, plastic and plastic-lined steel containers.

DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

---

#### ACTIVE INGREDIENT:

\*Glyphosate, N-(phosphonomethyl)

glycine, in the form of its

isopropylamine salt.....41.0%

INERT INGREDIENTS:.....59.0%

100.0%

\*Contains 480 grams per litre or 4 pounds per U.S. gallon of the active ingredient, glyphosate, in the form of its isopropylamine salt. Equivalent to 356 grams per litre or 3 pounds per U.S. gallon of the acid, glyphosate.

---

#### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

---

#### Storage and Disposal

Do not contaminate water, foodstuffs, ~~seed or feed~~ feed or seed by storage or disposal.

#### DISPOSAL:

Wastes resulting from the use of this product that can not be used or chemically reprocessed should be disposed of in a landfill

approved for pesticide disposal or in accordance with applicable Federal, state or local procedures.

Emptied container retains vapor and product residue. Observe all labeled safeguards until container is destroyed.

Do not reuse container. Triple rinse container, then puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

~~See container label for STORAGE AND DISPOSAL instructions.~~

---

#### GENERAL INFORMATION

---

DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT EXCEPT UNDER CONDITIONS AS SPECIFIED WITHIN THIS LABEL.

MON-35085 herbicide, a water soluble liquid, mixes readily with water to be applied as a foliar spray for the control or destruction of most herbaceous plants. It may be applied through most standard industrial or field-type sprayers after dilution and thorough mixing with water in accordance with label instructions.

This product moves through the plant from the point of foliage contact to and into the root system. Visible effects on most annual weeds occur within 2 to 4 days, but on most perennial weeds may not occur for 7 days or more. Extremely cool or cloudy weather following treatment may slow down activity of this product and delay visual effects of control. Visible effects are a gradual wilting and yellowing of the plant which advances to complete browning of aboveground growth and deterioration of underground plant parts.

Unless otherwise specified on this label, delay application until vegetation has emerged and reached the stages described for control of such vegetation under the "Weeds Controlled" section of this label. Unemerged plants arising from unattached underground rhizomes or root stocks of perennials will not be affected by the spray and will continue to grow. For this reason, best control of most perennial weeds is obtained when treatment is made at late growth stages approaching maturity.

Always use the higher rate of this product per acre within the recommended range when (1) weed growth is heavy or dense, or (2) weeds are growing in an undisturbed (noncultivated) area.

Do not treat weeds under poor growing conditions such as drought

stress, disease or insect damage, as reduced weed control may result. Reduced results may also occur when treating weeds heavily covered with dust.

Reduced control may result when applications are made to annual or perennial weeds that have been mowed, grazed, or cut, and have not been allowed to regrow to the recommended stage for treatment.

Rainfall or irrigation occurring within 6 hours after application may reduce effectiveness. Heavy rainfall or irrigation within 2 hours after application may wash the chemical off the foliage and a repeat treatment may be required.

This product does not provide residual weed control. For subsequent residual weed control, follow a label-approved herbicide program. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

Buyer and all users are responsible for all loss or damage in connection with the use or handling of mixtures of this product with herbicides or other materials that are not expressly recommended in this labeling. Mixing this product with herbicides or other materials not recommended on this label may result in reduced performance.

For best results, spray coverage should be uniform and complete. Do not spray weed foliage to the point of runoff.

Keep people and pets off treated areas until spray solution has dried.

**DOMESTIC ANIMALS:** This product is considered to be relatively nontoxic to dogs and other domestic animals; however, ingestion of this product or large amounts of freshly sprayed vegetation may result in temporary gastrointestinal irritation (vomiting, diarrhea, colic, etc.). If such symptoms are observed, provide the animal with plenty of fluids to prevent dehydration. Call a veterinarian if symptoms persist for more than 24 hours.

#### ATTENTION

**AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS.**

Do not allow the herbicide solution to mist, drip, drift, or splash onto desirable vegetation since minute quantities of this product can cause severe damage or destruction to the crop, plants, or other areas on which treatment was not intended. The likelihood of injury occurring from the use of this product is greatest when

winds are gusty or in excess of 5 miles per hour or when other conditions, including lesser wind velocities, will allow spray drift to occur. When spraying, avoid combinations of pressure and nozzle type that will result in splatter or fine particles (mist) which are likely to drift. AVOID APPLYING AT EXCESSIVE SPEED OR PRESSURE.

NOTE: Use of this product in any manner not consistent with this label may result in injury to persons, animals or crops, or other unintended consequences. Keep container closed to prevent spills and contamination.

---

#### MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS

---

APPLY THESE SPRAY SOLUTIONS IN PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING DESIRED VOLUMES. DO NOT APPLY UNDER WIND OR OTHER CONDITIONS WHICH ALLOW DRIFT TO OCCUR. HAND GUN APPLICATIONS SHOULD BE PROPERLY DIRECTED TO AVOID SPRAYING DESIRABLE PLANTS. NOTE: REDUCED RESULTS MAY OCCUR IF WATER CONTAINING SOIL IS USED, such as WATER FROM PONDS AND UNLINED DITCHES.

---

#### MIXING

---

This product mixes readily with water. Mix spray solutions of this product as follows: Fill the mixing or spray tank with the required amount of water. Add the proper amount of this product (see the "Directions for Use" and "Weeds Controlled" sections of this label) near the end of the filling process and mix well. Remove hose from tank immediately after filling to avoid siphoning back into the carrier source. During mixing and application, foaming of the spray solution may occur. To prevent or minimize foam, avoid the use of mechanical agitators, place the filling hose below the surface of the spray solution, terminate by-pass and return lines at the bottom of the tank and, if needed, use an approved anti-foam or defoaming agent.

#### TANK MIXTURES

Always predetermine the compatibility of labeled tank mixtures of this product with water carrier by mixing small proportional quantities in advance.

Mix labeled tank mixtures of this product with water as follows:

1. Place a 20 to 35 mesh screen or wetting basket over filling port.



2. Through the screen, fill the sprayer tank one-half full with water and start agitation.
3. If a wettable powder is used, make a slurry with the water carrier, and add it SLOWLY through the screen into the tank. Continue agitation.
4. If a flowable formulation is used, premix one part flowable with one part water. Add diluted mixture SLOWLY through the screen into the tank. Continue agitation.
5. If an emulsifiable concentrate formulation is used, premix one part emulsifiable concentrate with two parts water. Add diluted mixture slowly through the screen into the tank. Continue agitation.
6. Continue filling the sprayer tank with water and add the required amount of this product near the end of the filling.
7. Where nonionic surfactant is recommended, add this to the spray tank before completing the filling process.
8. Add individual formulations to the spray tank as follows: wettable powder, flowable, emulsifiable concentrate, drift control additive, water soluble liquid followed by surfactant.

Maintain good agitation at all times until the contents of the tank are sprayed. If the spray mixture is allowed to settle, thorough agitation is required to resuspend the mixture before spraying is resumed.

Keep by-pass line on or near bottom of tank to minimize foaming. Screen size in nozzle or line strainers should be no finer than 50 mesh. Carefully select proper nozzle to avoid spraying a fine mist. For best results with conventional ground applications equipment, use flat fan nozzles.

Clean sprayer and parts immediately after using this product by thoroughly flushing with water.

---

#### ADDITIVES

---

#### SURFACTANTS

Nonionic surfactants which are labeled for use with herbicides may be used. Do not reduce rates of this product when adding surfactant. When adding additional surfactant or label instructions

require the use of additional surfactant, use 0.5 percent surfactant concentration (2 quarts per 100 gallons of spray solution) when using surfactants which contain at least ~~50-70~~ percent active ingredient or a 1 percent surfactant concentration (4 quarts per 100 gallons of spray solution) for those surfactants containing less than ~~50-70~~ percent active ingredient. Read and carefully observe surfactant cautionary statements and other information appearing on the surfactant label.

#### AMMONIUM SULFATE

The addition of 2 percent dry ammonium sulfate by weight or 17 pounds per 100 gallons of water may increase the performance of this product, and this product, plus 2,4-D amine or Banvel™ tank mixtures on annual and perennial weeds. The improvement in performance may be apparent where environmental stress is a concern. Low quality ammonium sulfate may contain material that will not readily dissolve which could result in nozzle tip plugging. To determine quality, perform a jar test by adding 1/3 cup of ammonium sulfate to 1 gallon of water and agitate for 1 minute. If undissolved sediment is observed, predissolve the ammonium sulfate in water and filter prior to addition to the spray tank. If ammonium sulfate is added directly to the spray tank, add slowly with agitation. Adding too quickly may clog outlet line. Ensure that ammonium sulfate is completely dissolved in the spray tank before adding herbicides or surfactant. Thoroughly rinse the spray system with clean water after use to reduce corrosion.

NOTE: The use of ammonium sulfate as an additive does not preclude the need for additional surfactant. Do not use herbicide rates lower than recommended in this label.

Banvel™ is a trademark of Sandoz, Inc.

#### COLORANTS OR DYES

Agriculturally approved colorants or marking dyes may be added to this product. Colorants or dyes used in spray solutions of this product may reduce performance, especially at lower rates or dilutions. Use colorants or dyes according to the manufacturer's recommendations.

---

#### APPLICATION EQUIPMENT AND TECHNIQUES

---

Do not apply this product through any type of irrigation system.

This product may be applied with the following application

equipment:

**Aerial -- Fixed Wing and Helicopter**

**Broadcast Spray**

**Controlled Droplet Applicator (CDA) --** Hand-held or boom-mounted applicators which produce a spray consisting of a narrow range of droplet sizes.

**Hand-Held and High-Volume Spray Equipment --** Knapsack and backpack sprayers, pump-up pressure sprayers, handguns, handwands, lances and other hand-held spray equipment used to direct the spray onto weed foliage and vehicle-mounted high-volume spray equipment for spray-to-wet applications.

**Selective equipment --** Recirculating sprayers, shielded sprayers and wiper applicators.

See the appropriate part of this section for specific rates of application and instructions.

#### ■ AERIAL EQUIPMENT ■

Use the recommended rates of this herbicide in 3 to 15 gallons of water per acre unless otherwise specified on this label. See the "Weeds Controlled" section of this label for specific rates. Unless otherwise specified, do not exceed the one-quart rate per acre of this product. (Aerial applications of this product may be made in annual cropping conventional tillage systems, fallow and reduced tillage systems, preharvest, silvicultural sites, and rights-of-way. Refer to the individual use area sections of this label for recommended volumes and application rates.) FOR AERIAL APPLICATION IN CALIFORNIA, REFER TO THE FEDERAL SUPPLEMENTAL LABEL FOR AERIAL APPLICATIONS IN THAT STATE FOR SPECIFIC INSTRUCTIONS, RESTRICTIONS AND REQUIREMENTS.

This product plus Oust tank mixtures may not be applied by air in California.

Avoid direct application to any body of water.

AVOID DRIFT--DO NOT APPLY DURING INVERSION CONDITIONS, WHEN WINDS ARE GUSTY, OR UNDER ANY OTHER CONDITION WHICH WILL ALLOW DRIFT. DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

Coarse sprays are less likely to drift; therefore, do not use nozzles or nozzle configurations which dispense spray as fine spray

droplets. Do not angle nozzles forward into the airstream and do not increase spray volume by increasing nozzle pressure.

Drift control additives may be used. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label.

**Ensure uniform application** -- To avoid streaked, uneven or overlapped application, use appropriate marking devices.

Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove residues of this product accumulated during spraying or from spills. PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART. LANDING GEAR ARE MOST SUSCEPTIBLE. The maintenance of an organic coating (paint) which meets aerospace specification MIL-C-38413 may prevent corrosion.

#### ■ BROADCAST EQUIPMENT ■

For control of annual or perennial weeds listed on this label using broadcast equipment -- Use the recommended rates of this product in 3 to 40 gallons of water per acre as a broadcast spray unless otherwise specified on this label. See the "Weeds Controlled" section of this label for specific rates. As density of weeds increases, spray gallonage should be increased within the recommended range to ensure complete coverage. Carefully select proper nozzle to avoid spraying a fine mist. For best results with ground application equipment, use flat fan nozzles. Check for even distribution of spray droplets.

#### ■ CONTROLLED DROPLET APPLICATION (CDA) ■

The rate of this product applied per acre by vehicle-mounted CDA equipment must not be less than the amount recommended in this label when applied by conventional broadcast equipment. For vehicle-mounted CDA equipment, apply 3 to 15 gallons of water per acre.

For the control of labeled annual weeds with hand-held CDA units, apply a 20 percent solution of this product at a flow rate of 2 fluid ounces per minute and a walking speed of 1.5 MPH (1 quart per acre). For the control of labeled perennial weeds, apply a 20 to 40 percent solution of this product at a flow rate of 2 fluid ounces per minute and a walking speed of 0.75 MPH (2 to 4 quarts per acre).

Controlled droplet application equipment produces a spray pattern which is not easily visible. Extreme care must be exercised to

avoid spray or drift contacting the foliage or any other green tissue of desirable vegetation, as damage or destruction may result.

■ **HAND-HELD and HIGH-VOLUME** ■  
**EQUIPMENT**

Use coarse sprays only.

Mix this product in clean water and apply to foliage of vegetation to be controlled. For applications made on a spray-to-wet basis, spray coverage should be uniform and complete. Do not spray to the point of runoff.

For control of annual weeds listed on this label, apply a 0.5 percent solution of this product plus nonionic surfactant to weeds less than 6 inches in height or runner length. Apply prior to seedhead formation in grass or bud formation in broadleaves. Allow three or more days before tillage or mowing.

For annual weeds over 6 inches tall, or when not using additional surfactant, or unless otherwise specified, use a 1 percent solution. For best results, use a 2 percent solution on harder-to-control perennials, such as bermudagrass, dock, field bindweed, hemp dogbane, milkweed and Canada thistle.

Less than complete coverage of weeds may result from the use of spray equipment designed for motorized spot treatments. Where less than complete coverage of annual weeds occurs, use a 5 percent solution. Do not reduce recommended concentrations of this product when adding surfactant.

Prepare the desired volume of spray solution by mixing the amount of this product in water as shown in the following table:

**Spray Solution**

| DESIRED<br>VOLUME | AMOUNT OF MON-35085 |          |           |          |          |
|-------------------|---------------------|----------|-----------|----------|----------|
|                   | 1/2%                | 1%       | 1 1/2%    | 2%       | 5%       |
| 1 gallon          | 2/3 oz              | 1 1/3 oz | 2 oz      | 2 2/3 oz | 6 1/2 oz |
| 25 gallons        | 1 pt                | 1 qt     | 1 1/2 qt  | 2 qt     | 5 qt     |
| 100 gallons       | 2 qt                | 1 gal    | 1 1/2 gal | 2 gal    | 5 gal    |

2 tablespoons = 1 ounce

For use in knapsack sprayers, it is suggested that the proper amount of this product be mixed with water in a larger

container. Fill sprayer with the mixed solution.

For hand-held WIPER APPLICATORS, see the "Selective Equipment" section and for hand-held CONTROLLED DROPLET APPLICATORS, see the "Controlled Droplet Application (CDA)" section of this label.

#### ■ SELECTIVE EQUIPMENT ■

This product may be applied through a recirculating spray system, a shielded applicator, or a wiper applicator after dilution and thorough mixing with water to listed weeds growing in any noncrop site specified on this label and only when specifically recommended in cropping systems.

A recirculating spray system directs the spray solution onto weeds growing above desirable vegetation, while spray solution not intercepted by weeds is collected and returned to the spray tank for reuse.

A shielded applicator directs the herbicide solution onto weeds while shielding desirable vegetation from the herbicide.

A wiper applicator applies the herbicide solution onto weeds by rubbing the weed with an absorbent material containing the herbicide solution.

#### AVOID CONTACT WITH DESIRABLE VEGETATION.

Contact of the herbicide solution with the desirable vegetation may result in damage or destruction. Applicators used above desired vegetation should be adjusted so that the lowest spray stream or wiper contact point is at least two inches above the desirable vegetation. Droplets, mist, foam, or splatter of the herbicide solution settling on desirable vegetation may result in discoloration, stunting, or destruction.

Applications made above the crops should be made when the weeds are a minimum of 6 inches above the desirable vegetation. Better results may be obtained when more of the weed is exposed to the herbicide solution. Weeds not contacted by the herbicide solution will not be affected. This may occur in dense clumps, severe infestations, or when the height of the weeds varies so that not all weeds are contacted. In these instances, repeat treatment may be necessary.

See the "Weeds Controlled" section of this label for recommended stage of growth for specific weeds.

#### NOTE

- Maintain equipment in good operating condition. Avoid leakage or dripping onto desirable vegetation.
- Adjust height of applicator to insure adequate contact with weeds.
- Keep nozzle tips and wiping surfaces clean.
- Keep spray patterns aligned into recovery chamber of the recirculating sprayer.
- Keep shields on shielded applicators adjusted to protect desirable vegetation.
- Maintain recommended roller RPM on roller applicators while in use.
- Keep wiper material at proper degree of saturation with herbicide solution.
- DO NOT use wiper equipment when weeds are wet.
- DO NOT operate equipment at ground speeds greater than 5 mph. Weed control may be affected by speed of application equipment. As weed density increases, reduce equipment ground speed to ensure good coverage of weeds.
- Be aware that, on sloping ground, the herbicide solution may migrate, causing dripping on the lower end and drying on the upper end of a wiper applicator.
- Variation in equipment design may affect weed control. With wiper applicators, the wiping material and its orientation must allow delivery of sufficient quantities of the recommended herbicide solution directly to the weed.
- Care must be taken with all types of wipers to ensure that the absorbent material does not become oversaturated, causing the herbicide to drip on desirable vegetation.
- Mix only the amount of solution to be used during a one-day period, as reduced activity may result from use of leftover solutions. With all equipment, drain and clean sprayer and wiper parts immediately after using this product by thoroughly flushing with water.

#### RECIRCULATING SPRAYERS

Recirculating sprayer calibration is made on the basis of ground

speed and delivery volume. Two procedures can be used to calibrate: (1) determine the discharge being delivered per minute, then operate at the designated ground speed, or (2) select the desired ground speed and then adjust the sprayer to deliver the recommended volume per minute (this may require nozzle changes). Use the appropriate table below.

Do not operate at nozzle pressure above 20 PSI.

**Table 1.** Use this table when calibrating box or row-type recirculating sprayers. Box or row-type sprayer calibration is based on the total discharge collected per row. Use only straight stream or 15' fan-type nozzles.

---

\*VOLUME PER MINUTE PER ROW

| <u>MPH</u> | <u>Ounces</u> |
|------------|---------------|
| 2          | 26 to 35      |
| 3          | 38 to 51      |
| 4          | 51 to 68      |
| 5          | 65 to 86      |

\*NOTE: Be certain the amount collected is for all spray streams treating one row.

---

**Table 2.** Use this table when calibrating broadcast type recirculating sprayers. Broadcast recirculating sprayer calibration is based on the discharge collected per minute from one nozzle on a 20-inch spacing.

---

VOLUME PER MINUTE PER NOZZLE

| <u>MPH</u> | <u>Ounces</u> |
|------------|---------------|
| 2          | 7 to 9        |
| 3          | 10 to 13      |
| 4          | 13 to 18      |
| 5          | 16 to 22      |

---

When applied as recommended under the conditions described for recirculating sprayers, this product will control the following weeds growing a minimum of 6 inches above desirable vegetation.

**Perennial Broadleaf Weeds** -- To SUPPRESS the following weeds, mix in a ratio of 4 quarts of this product in 20 gallons of water and apply as directed.

(9/13/90)

(CAUTION1, 7.7%, Sec.1)

15

02700131

347-



Dogbane, hemp  
*Apocynum cannabinum*

Milkweed  
*Asclepias syriaca*

**Perennial Grasses and Annual Broadleaf Weeds** -- To control the following weeds, mix in a ratio of 3 quarts of this product in 20 gallons of water and apply as directed:

Cocklebur  
*Xanthium*  
*strumarium*

Pigweed, redroot  
*Amaranthus*  
*retroflexus*

Johnsongrass  
*Sorghum halepense*

Sunflower  
*Helianthus annuus*

**Annual Grasses** -- To control the following weeds, mix in a ratio of 2 quarts of this product in 20 gallons of water and apply as directed:

Corn  
*Zea mays*

Shattercane  
*Sorghum bicolor*

#### SHIELDED APPLICATORS

When applied as directed under conditions described for shielded applicators, this product will control those weeds listed in the "Weeds Controlled" section of this label.

Shielded applicators which apply the herbicide solution as a spray band should be calibrated on a broadcast equivalent rate and volume basis. To determine these:

|                         |   |  |   |                                    |
|-------------------------|---|--|---|------------------------------------|
| Band width<br>in inches | X | Herbicide<br>Broadcast<br>RATE<br>per acre | = | Herbicide<br>Band RATE<br>per acre |
| Row width<br>in inches  |   |  |   |                                    |

|                         |   |  |   |  |
|-------------------------|---|--|---|--|
| Band width<br>in inches | X | Herbicide<br>VOLUME of<br>solution<br>per acre | = | Herbicide<br>VOLUME<br>of solution<br>per acre |
| Row width<br>in inches  |   |  |   |  |

Use nozzles that provide uniform coverage within the treated area. EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT WITH DESIRABLE VEGETATION.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "Weeds Controlled" section of this label.

#### WIPER APPLICATORS

Wiper applicators include either roller or wick devices which physically wipe appropriate concentrations or amounts of this product directly onto the weed. Equipment must be designed, maintained, and operated to prevent the herbicide solution from contacting desirable vegetation. Operate this equipment at ground speeds no greater than 5 mph. Performance may be improved by reducing speed in areas of heavy weed infestations to ensure adequate wiper saturation. Better results may be obtained if two applications are made in opposite directions.

Do not add surfactant to the herbicide solution.

**For Roller Applicators** -- Mix 1 gallon of this product in enough water to prepare 10 gallons of herbicide solution (10 percent solution). Apply this solution to perennial weeds or annual broadleaf weeds listed in this "Wiper Applicators" section.

Mix 1 gallon of this product in enough water to provide 20 gallons of herbicide solution (5 percent solution). Apply this solution to annual grasses listed in this "Wiper Applicators" section.

Roller speed should be maintained at 40 to 60 RPM.

**For Wick or Wiper Applicators** -- Mix 1 gallon of this product in 2 gallons of water to prepare a 33 percent solution. Apply this solution to weeds listed in this "Wiper Applicators" section.

In severe infestations, reduce equipment ground speed to ensure that adequate amounts of this product are wiped on the weeds. A second treatment in the opposite direction may be beneficial.

Do not permit herbicide solution to contact desirable vegetation.

When applied as recommended under the conditions described for "Wiper Applicators", this product CONTROLS the following weeds:

#### ANNUAL GRASSES

Corn

Rye, common

*Zea mays*

*Secale cereale*

**Panicum, Texas**  
*Panicum texanum*

**Shattercane**  
*Sorghum bicolor*

ANNUAL BROADLEAVES

**Sicklepod**  
*Cassia obtusifolia*

**Spanishneedles**  
*Bidens bipinnata*

**Starbur, bristly**  
*Acanthospermum*  
*hispidum*

When applied as recommended under the conditions described for  
'Wiper Applicators', this product SUPPRESSES the following weeds:

ANNUAL BROADLEAVES

**Beggarweed, Florida**  
*Desmodium*  
*tortuosum*

**Ragweed, giant**  
*Ambrosia trifida*

**Dogfennel**  
*Eupatorium*  
*capilliflorum*

**Sunflower**  
*Helianthus annuus*

**Pigweed, redroot**  
*Amaranthus*  
*retroflexus*

**Thistle, musk**  
*Carduus nutans*

**Ragweed, common**  
*Ambrosia artemisiifolia*

**Velvetleaf**  
*Abutilon theophrasti*

PERENNIAL GRASSES

**Bermudagrass**  
*Cynodon dactylon*

**Smutgrass**  
*Sporobolus poiretii*

**Guineagrass**  
*Panicum maximum*

**Vaseygrass**  
*Paspalum urvillei*

**Johnsongrass**  
*Sorghum halepense*

PERENNIAL BROADLEAVES

350-

Dogbane, hemp  
*Apocynum cannabinum*

Nightshade, silverleaf  
*Solanum elaeagnifolium*

Milkweed  
*Asclepias syriaca*

Thistle, Canada  
*Cirsium arvense*

---

#### WEEDS CONTROLLED

This herbicide controls many annual and perennial grasses and broadleaf weeds.

#### ANNUAL WEEDS

- Apply to actively growing grass and broadleaf weeds.
- Allow at least 3 days after treatment before tillage.
- For maximum agronomic benefit, apply when weeds are 6 inches or less in height.
- To prevent seed production, applications should be made prior to seedhead formation.
- This product does not provide residual control; therefore, delay application until maximum weed emergence. Repeat treatments may be necessary to control later germinating weeds.

#### LOW-VOLUME BROADCAST APPLICATION (LOW-RATE TECHNOLOGY)

When applied as directed under the conditions described, this product will control the weeds listed below when:

1. Water carrier volumes are 3 to 10 gallons per acre for ground applications and 3 to 5 gallons per acre for aerial applications. (See the "Aerial Application" section of this label for approved sites.)
2. A nonionic surfactant is added at 0.5 to 1 percent by total spray volume. Use 0.5 percent surfactant concentration when using surfactants which contain at least 50% percent active ingredient or a 1 percent surfactant concentration for those surfactants containing less than 50% percent active ingredient.

#### NOTE

(CAUTION!, 7.7%, Sec.1)

19

(9/13/90)

0310:0131

351

- The addition of 2 percent dry ammonium sulfate by weight or 17 pounds per 100 gallons of water may increase the performance of this product on annual weeds. The improvement in performance may be apparent where environmental stress is a concern. Refer to the 'Mixing, Additives and Application Instructions' section of this label.
- Do not tank-mix with soil residual herbicides when using these rates unless otherwise specified.
- For weeds that have been mowed, grazed, or cut, allow regrowth to occur prior to treatment.
- Refer to the 'Tank Mixtures' portion of this section for control of additional broadleaf weeds.

| WEED SPECIES                                    | MAXIMUM<br>HEIGHT          | RATE<br>PER<br>ACRE**                                |
|---|----------------------------|--|
| Foxtail<br><i>Setaria spp.</i>                  | 12"                        | 8 oz.  |
| Barnyardgrass<br><i>Echinochloa crus-galli</i>  | 6"<br>(0 to 4"<br>(4 to 6" | 12 oz.<br>16 oz. <sup>1</sup><br>24 oz. <sup>1</sup> |
| Bluegrass, annual<br><i>Poa annua</i>           |                            |  |
| Brome, downy*<br><i>Bromus tectorum</i>         |                            |  |
| Mustard, blue<br><i>Chorispora tenella</i>      |                            |  |
| Mustard, tansy<br><i>Descurainia pinnata</i>    |                            |  |
| Mustard, tumble<br><i>Sisymbrium altissimum</i> |                            |  |
| Mustard, wild<br><i>Sinapis arvensis</i>        |                            |  |
| Spurry, umbrella<br><i>Holosteum umbellatum</i> |                            |  |

---

**Barley** 12"

*Hordeum vulgare*

**Rye**

*Secale cereale*

**Sandbur, field**

*Cenchrus spp.*

**Shattercane**

*Sorghum bicolor*

**Stinkgrass**

*Eragrostis cilianensis*

---

**Wheat**

18"

*Triticum aestivum*

---

**Morningglory**

2"

16 oz.

*Ipomea spp.*

**Sicklepod**

*Cassia obtusifolia*

---

**Bluegrass, bulbous**

6"

*Poa bulbosa*

**Cheat**

*Bromus secalinus*

**Chickweed, mouseear**

*Cerastium vulgatum*

**Corn**

*Zea mays*

**Gfoundsel, common**

*Senecio vulgaris*

**Horseweed/Marestail**

*Conyza canadensis*

**Lambsquarters, common**

*Chenopodium album*

**Pennycress, field**

Fanweed  
*Thlaspi arvense*

Rocket, London  
*Sisymbrium irio*

Ryegrass, Italian  
*Lolium multiflorum*

Shepherdspurse  
*Capsella bursa-pastoris*

---

Buttercup 12"  
*Ranunculus* spp.

Cocklebur  
*Xanthium strumarium*

Crabgrass  
*Digitaria* spp.

Dwarf dandelion  
*Krigia cespitosa*

False flax, smallseed  
*Camelina microcarpa*

Foxtail, Carolina  
*Alopecurus carolinianus*

Johnsongrass, seedling  
*Sorghum halepense*

Oats, wild  
*Avena fatua*

Panicum, fall  
*Panicum dichotomiflorum*

Panicum, Texas  
*Panicum texanum*

Pigweed, redroot  
*Amaranthus retroflexus*

Pigweed, smooth  
*Amaranthus hybridus*

Witchgrass

354 -

*Panicum capillare*

---

|  |         |       |
|--|---------|-------|
| Sicklepod<br><i>Cassia obtusifolia</i> | 3 to 4" | 24 oz |
|--|---------|-------|

|   |    |
|---|----|
| Signalgrass, broadleaf<br><i>Brachiaria platyphylla</i> | 4" |
|---|----|

---

|   |          |
|---|----------|
| Horseweed/Marestail<br><i>Conyza canadensis</i> | 7 to 12" |
|---|----------|

|   |
|---|
| Lambsquarters, common<br><i>Chenopodium album</i> |
|---|

---

|                                |    |        |
|--------------------------------|----|--------|
| Teaweed<br><i>Sida spinosa</i> | 4" | 32 oz. |
|--------------------------------|----|--------|

---

|                                  |    |
|----------------------------------|----|
| Rice, red<br><i>Oryza sativa</i> | 6" |
|----------------------------------|----|

---

|  |     |
|--|-----|
| Geranium, Carolina<br><i>Geranium carolinianum</i> | 12" |
|--|-----|

|                                      |
|--------------------------------------|
| Goosegrass<br><i>Eleusine indica</i> |
|--------------------------------------|

|   |
|---|
| Primrose, cutleaf evening<br><i>Oenothera laciniata</i> |
|---|

|  |
|--|
| Pusley, Florida<br><i>Richardia scabra</i> |
|--|

|  |          |
|--|----------|
| Sicklepod<br><i>Cassia obtusifolia</i> | 5 to 12" |
|--|----------|

|   |
|---|
| Spanishneedles<br><i>Bidens bipinnata</i> |
|---|

---

|                               |     |        |
|-------------------------------|-----|--------|
| Flaree<br><i>Erodium spp.</i> | 12" | 48 oz. |
|-------------------------------|-----|--------|

---

<sup>1</sup>Use these rates in Alabama, Arkansas, Mississippi, Missouri, Louisiana and Texas for preplant treatments.

\* For control in no-till systems, use 16 fluid ounces per acre.



\*\* For those rates less than 32 ounces per acre, this product at rates up to 32 ounces per acre may be used where heavy weed densities exist.

**TANK MIXTURES**

**MON-35085 plus BANVEL  
plus NONIONIC SURFACTANT**

**MON-35085 plus 2,4-D AMINE  
plus NONIONIC SURFACTANT**

DO NOT APPLY BANVEL OR 2,4-D AMINE TANK MIXTURES BY AIR IN CALIFORNIA.

These tank mixtures are recommended for use in fallow and reduced tillage areas only. Follow use directions as given in the "Low-Volume Broadcast Application" section.

MON-35085 plus Banvel or 2,4-D amine will control the annual grasses and broadleaf weeds previously listed for MON-35085 alone at the indicated heights (except 8 ounces per acre applications), plus the following broadleaf weeds. For those weeds previously listed at 8 ounces of MON-35085 herbicide alone per acre, use the 12-ounce rate in these tank mixtures.

NOTE: Refer to the specific product labels for crop rotation restrictions and cautionary statements of all products used in tank mixtures. Some crop injury may occur if Banvel is applied within 45 days of planting. The addition of Banvel in a mixture with this product may provide short-term residual control of selected weed species.

Apply 12 to 16 ounces of this product plus 0.25 lb. a.i. of Banvel or 0.5 pound a.e. of 2,4-D amine, plus 0.5 to 1 percent nonionic surfactant by total spray volume per acre to control dense populations of the following annual broadleaf weeds when less than 6 inches in height:

**Kochia\***

*Kochia scoparia*

**Pigweed, redroot**

*Amaranthus retroflexus*

**Lambsquarters**

*Chenopodium album*

**Thistle, Russian**

*Salsola kali*

**Lettuce, prickly**

*Lactuca serriola*



\*Controlled with Banvel tank mixture only.

#### HIGH-VOLUME BROADCAST APPLICATIONS

When applied as directed under the conditions described, this product will control the weeds listed below when water carrier volumes are 10 to 40 gallons per acre for ground applications.

~~Use 1 quart of this product per acre if weeds are less than 6 inches tall. If weeds are over 6 inches tall, use 1.5 quarts of this product per acre. Apply 1 to 1.5 quarts of this product per acre plus 0.5 to 1 percent nonionic surfactant by total spray volume. Use 1 quart per acre if weeds are less than 6 inches tall and 1.5 quarts per acre if weeds are over 6 inches tall. If weeds have been mowed, grazed, or cut, allow adequate time for new growth to recommended stages prior to treatment. These rates will also provide control of weeds listed in the "Low-Volume Broadcast Application" section.~~

#### WEED SPECIES

|   |  |
|---|--|
| <b>Balsamapple*</b><br><i>Momordica charantia</i>     | <b>Panicum</b><br><i>Panicum spp.</i>                            |
| <b>Bassia, fivehook</b><br><i>Bassia hyssopifolia</i> | <b>Ragweed, common</b><br><i>Ambrosia artemisiifolia</i>         |
| <b>Brome</b><br><i>Bromus spp.</i>                    | <b>Ragweed, giant</b><br><i>Ambrosia trifida</i>                 |
| <b>Fiddleneck</b><br><i>Amsinckia spp.</i>            | <b>Smartweed, Pennsylvania</b><br><i>Polygonum pensylvanicum</i> |
| <b>Flaxleaf Fleabane</b><br><i>Conyza bonariensis</i> | <b>Sowthistle, annual</b><br><i>Sonchus oleraceus</i>            |
| <b>Fleabane</b><br><i>Erigeron spp.</i>               | <b>Sunflower</b><br><i>Helianthus annuus</i>                     |
| <b>Kochia</b><br><i>Kochia scoparia</i>               | <b>Thistle, Russian</b><br><i>Salsola kali</i>                   |
| <b>Lettuce, prickly</b><br><i>Lactuca serriola</i>    | <b>Velvetleaf</b><br><i>Abutilon theophrasti</i>                 |

\*Apply with hand-held equipment only.

#### PERENNIAL WEEDS

Apply this product as follows to control or destroy most perennial weeds:

NOTE: If weeds have been mowed or tilled, do not treat until plants have resumed active growth and are at the recommended stages.

Repeat treatments may be necessary to control weeds regenerating from underground parts or seed. Repeat treatments must be made prior to crop emergence.

The addition of 2 percent dry ammonium sulfate by weight or 17 pounds per 100 gallons of water may increase the performance of this product on perennial weeds. The improvement in performance may be apparent where environmental stress is a concern. Refer to the "Mixing, Additives and Application Instructions" section of this label.

When applied as recommended under the conditions described, this product WILL CONTROL the following PERENNIAL WEEDS:

**Alfalfa**

*Medicago sativa*

**Alligatorweed\***

*Alternanthera  
philoxeroides*

**Artichoke, Jerusalem**

*Helianthus tuberosus*

**Bahiagrass**

*Paspalum notatum*

**Bentgrass**

*Agrostis spp.*

**Bermudagrass**

*Cynodon dactylon*

**Bindweed, field**

*Convolvulus arvensis*

**Bluegrass, Kentucky**

*Poa spp.*

**Blueweed, Texas**

*Helianthus ciliaris*

**Brackenfern**

**Pteridium aquilinum**  
**Bromegrass, smooth**  
*Bromus inermis*  
**Bursage, woollyleaf**  
*Franseria tomentosa*  
**Canarygrass, reed**  
*Phalaris arundinacea*  
**Cattail**  
*Typha spp.*  
**Clover, red**  
*Trifolium pratense*  
**Clover, white**  
*Trifolium repens*  
**Cogongrass**  
*Imperata cylindrica*  
**Dallisgrass**  
*Paspalum dilatatum*  
**Dandelion**  
*Taraxacum officinale*  
**Dock, curly**  
*Rumex crispus*  
**Dogbane, hemp**  
*Apocynum cannabinum*  
**Fescues**  
*Festuca spp.*  
**Fescue, tall**  
*Festuca arundinacea*  
**Guineagrass**  
*Panicum maximum*  
**Horsenettle**  
*Solanum carolinense*  
**Horseradish**  
*Armoracia rusticana*

**Johnsongrass**  
*Sorghum halepense*

**Kikuyugrass**  
*Pennisetum*  
*clandestinum*

**Knapweed**  
*Centaurea repens*

**Lantana**  
*Lantana camara*

**Milkweed**  
*Asclepias* spp.

**Muhly, wirestem**  
*Muhlenbergia frondosa*

**Mullein, common**  
*Verbascum thapsus*

**Napiergrass**  
*Pennisetum purpureum*

**Nightshade, silverleaf**  
*Solanum elaeagnifolium*

**Nutsedge, purple, yellow**  
*Cyperus rotundus*  
*Cyperus esculentus*

**Orchardgrass**  
*Dactylis glomerata*

**Pampas**  
*Cortaderia jubata*

**Paragrass**  
*Brachiaria mutica*

**Phragmites\***  
*Phragmites* spp.

**Quackgrass**  
*Agropyron repens*

**Reed, giant**  
*Arundo donax*

**Ryegrass, perennial**  
*Lolium perenne*

**Smartweed, swamp**  
*Polygonum coccineum*

**Sweet potato, wild\***  
*Ipomoea pandurata*

**Thistle, Canada**  
*Cirsium arvense*

**Timothy**  
*Phleum pratense*

**Torpedograss\***  
*Panicum repens*

**Vaseygrass**  
*Paspalum urvillei*

**Wheatgrass, western**  
*Agropyron smithii*

**\*Partial Control**

See "Directions for Use" and "Mixing, Additives and Application Instructions" sections of this label for labeled uses and specific application instructions.

**Alfalfa**--Apply 1 quart of this product per acre plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Make application after the last hay cutting in the fall. Allow alfalfa to regrow to a height of 6 to 8 inches or more prior to treatment. Applications should be followed with deep tillage at least 7 days after treatment, but before soil freeze-up.

**Alfagatorweed**--Apply 4 quarts of this product per acre or apply a 1 1/2 percent solution with hand-held equipment to provide partial control. Apply when most of the plants are in bloom. Repeat applications will be required to maintain such control.

**Bentgrass**--For suppression in grass seed production areas. For ground applications only, apply 1.5 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 10 to 20 gallons of water per acre. Ensure entire crown area has resumed growth prior to a fall application. Bentgrass should be actively growing and have at least 3 inches of growth. Tillage prior to

treatment should be avoided. Tillage 7 to 10 days after application is recommended for best results. Failure to use tillage after treatment may result in unacceptable control.

**Bermudagrass**--For control, apply 5 quarts of this product per acre and, for partial control, apply 3 quarts per acre. Treat when bermudagrass is actively growing and seedheads are present. Retreatment may be necessary to maintain control. Allow 7 or more days after application before tillage.

**Bindweed, field/Blueweed, Texas**--Apply 4 to 5 quarts of this product per acre west of the Mississippi River and 3 to 4 quarts per acre east of the Mississippi River. Apply when weed is actively growing and is at or beyond full bloom. Do not treat when weed is under drought stress as good soil moisture is necessary for active growth. New leaf development indicates active growth. For best results, apply in late summer or fall. Fall treatments must be applied before a killing frost. Allow 7 or more days after application before tillage.

**Bindweed, field (suppression irrigated lands where annual tillage is performed)**--Apply 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to actively growing bindweed that has reached a length of 12 inches or greater. Allow maximum weed emergence and runner growth. Do not treat when weed is under drought stress as good soil moisture is necessary for active growth. Allow 3 or more days after application before tillage.

**Bluegrass, Kentucky / Bromegrass, smooth / Orchardgrass**--Apply 2 quarts of this product in 10 to 40 gallons of water per acre when the grasses are actively growing and most plants have reached boot-to-early seedhead stage of development. For partial control in pasture or hay crop renovation, apply 1 to 1½ quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to actively growing plants when most have reached 4 to 12 inches in height. Allow 7 or more days after application before tillage.

**Orchardgrass (sods going to no-till corn)**--Apply 1 to 1.5 quarts of this product per acre plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to orchardgrass that is a minimum of 12 inches tall for spring applications and 6 inches tall for fall applications. Allow at least three days following application before planting. A sequential application of 3.75 to 4.5 quarts of Lariat® herbicide, or equivalent, will be necessary for optimum results. Lariat should be applied within 3 to 10 days following spring applications to prevent annual weed growth.



Lariat is not registered for use in California.

®Lariat is a registered trademark of Monsanto Company.

**Brackenfern**--Apply 3 to 4 quarts of this product per acre as a broadcast spray or as a 1 to 1½ percent solution with hand-held equipment. Apply to fully expanded fronds which are at least 18 inches long.

**Bursage, woollyleaf**--For control, apply 2 quarts of this product plus 1 pint of Banvel per acre. For partial control, apply 1 quart of this product plus 1 pint of Banvel per acre. Add 0.5 to 1 percent nonionic surfactant by total spray volume and apply 3 to 20 gallons of water per acre. Apply when plants are producing new active growth which has been initiated by moisture for at least 2 weeks and when plants are at or beyond flowering.

**Canarygrass, reed/Timothy / Wheatgrass, western**--Apply 2 to 3 quarts of this product per acre. For best results, apply to actively growing plants when most have reached the boot-to-head stage of growth. Allow 7 or more days after application before tillage.

**Cogongrass**--Apply 3 to 5 quarts of this product plus 0.5 to 1 percent nonionic surfactant in 10 to 40 gallons of water per acre. Apply when Cogongrass is at least 18 inches tall and actively growing in late summer or fall. Allow 7 or more days after application before tillage or mowing. Due to uneven stages of growth and the dense nature of vegetation preventing good spray coverage, repeat treatments may be necessary to maintain control.

**Dogbane, hemp/Knapweed/Horseradish**--Apply 4 quarts of this product per acre. Apply when actively growing and when most weeds have reached the late bud to flower stage of growth. Following crop harvest or mowing, allow weeds to regrow to a mature stage prior to treatment. For best results, apply in late summer or fall. Allow 7 or more days after application before tillage.

**Fescue, tall**--Apply 3 quarts of this product in 10 to 40 gallons of water per acre to actively growing plants when most have reached boot-to-early seedhead stage of development.

**Fall applications only**--Apply 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to fescue in the fall when actively growing and plants have 6 to 12 inches of new growth. Allow 7 or more days after application before tillage. A sequential application of 1 pint per acre of this product plus nonionic surfactant will improve long-term control and control seedlings germinating after fall treatments or the following

spring.

**Guineagrass**--Apply 3 quarts of this product per acre or use a 1 percent solution with hand-held equipment. Apply to actively growing guineagrass when most has reached at least the 7-leaf stage of growth. Ensure thorough coverage when using hand-held equipment. Allow 7 or more days after application before tillage.

**Johnsongrass/Ryegrass, perennial**--Apply 1 to 3 quarts of this product per acre. In annual cropping systems apply 1 to 2 quarts of this product per acre. Apply 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre.

Use 2 quarts of this product when applying 10 to 40 gallons of water per acre. In noncrop or areas where annual tillage (no-till), is not performed, apply 2 to 3 quarts of this product in 10 to 40 gallons of water per acre. For best results, apply to actively growing plants when most have reached the boot-to-head stage of growth or in the fall prior to frost. Allow 7 or more days after application before tillage. Do not tank-mix with residual herbicides when using the 1 quart per acre rate.

For burndown of Johnsongrass, apply 1 pint per acre plus 0.5 to 1 percent nonionic surfactant in 3 to 10 gallons of water per acre before the plants reach a height of 12 inches. For this use, allow at least 3 days after treatment before tillage.

**Spot Treatment (partial control or suppression)**--Apply a 1 percent solution of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume when johnsongrass is 12 to 18 inches in height. Coverage should be uniform and complete.

**Kikuyugrass**--Apply 2 to 3 quarts of this product per acre. Spray when most kikuyugrass is at least 8 inches in height (3 or 4-leaf stage of growth) and actively growing. Allow 3 or more days after application before tillage.

**Lantana**--Apply this product as a 1 to 1½ percent solution using hand-held equipment only. Apply to actively growing lantana at or beyond the bloom stage of growth. Use the higher application rate for plants that have reached the woody stage of growth. Allow 7 or more days after application before tillage.

**Milkweed, common**--Apply 3 quarts of this product per acre. Apply when actively growing and most of the milkweed has reached the late bud to flower stage of growth. Following small grain harvest or mowing, allow milkweed to regrow to a mature stage prior to treatment. Allow 7 or more days after application before tillage.

**Muhly, wirestem**--Apply 1 to 2 quarts of this product per acre. Use 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Use 2 quarts of this product when applying 10 to 40 gallons of water per acre or in pasture, sod, or noncrop areas. Spray when the wirestem muhly is 8 inches or more in height and actively growing. Do not till between harvest and fall applications or in the fall or spring prior to spring applications. Allow 3 or more days after application before tillage. This product will not provide residual control of wirestem muhly from seeds which germinate after application of this product. Do not tank mix with residual herbicides when using the 1 quart per acre rate.

**Nightshade, silverleaf**--For control, apply 2 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Applications should be made when at least 60 percent of the plants have berries. Fall treatments must be applied before a killing frost. Allow 7 or more days after application before tillage. Do not treat when weed is under drought stress as good soil moisture is necessary for active growth.

**Nutsedge: purple, yellow**--Apply 3 quarts of this product per acre as a broadcast spray, or apply a 1 percent solution from hand-held equipment to control existing nutsedge plants and immature nutlets attached to treated plants. Treat when plants are in flower or when new nutlets can be found at rhizome tips. Nutlets which have not germinated will not be controlled and may germinate following treatment. Repeat treatments will be required for long-term control. Wait 7 days after treatment before tillage. Tillage will stimulate nutlet germination.

Apply 1 pint to 1 quart of this product per acre, plus 0.5 to 1 percent nonionic surfactant in 3 to 40 gallons of water per acre to provide suppression or partial control of existing nutsedge plants. Treat when plants have 3 to 5 leaves (less than 6 inches). Repeat treatments will be required to control subsequent emerging plants. Wait 7 days after treatment before tillage or mowing.

**Pampas**--Apply this product as a 1½ to 2 percent solution using hand-held equipment. Apply to plants that are actively growing at or beyond the boot stage of growth. Thorough coverage is necessary for best control.

**Phragmites**--For partial control of phragmites in Florida and the counties of other states bordering the Gulf of Mexico, apply 5 quarts per acre as a broadcast spray or apply a 2 percent solution from hand-held equipment. In other areas of the U.S., apply 3 quarts per acre as a broadcast spray or apply a 1 percent solution from hand-held equipment for partial control. For best results, treat during late summer or fall months or when plants are actively

growing and in full bloom. Treatment before or after this stage may lead to reduced control. Due to the dense nature of the vegetation, which may prevent good spray coverage or uneven stages of growth, repeat treatments may be necessary to maintain control. Visual control symptoms will be slow to develop.

**Quackgrass--In Annual Cropping Systems, or in Pastures and Sods Followed by Deep Tillage:** Apply 1 to 2 quarts of this product per acre. For the one quart rate, apply 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. For the 2 quart rate, apply in 10 to 40 gallons of water per acre. Do not tank mix with residual herbicides when using the 1 quart rate. Spray when quackgrass is 8 to 12 inches in height and actively growing. Do not till between harvest and fall applications or in fall or spring prior to spring application. Allow 3 or more days after application before tillage. In pastures or sods, for best results use a moldboard plow.

**Quackgrass--Pasture or Sod or Other Noncrop Areas Where Deep Tillage is Not Planned Following Application:** Apply 2 to 3 quarts in 10 to 40 gallons of water per acre. Spray when the quackgrass is greater than 8 inches tall and actively growing. Do not till between harvest and fall application or in fall or spring prior to spring application. Allow 3 or more days after application before tillage.

**Reed, giant--**For control of giant reed, apply a 2 percent solution of this product when plants are actively growing. Best results are obtained when applications are made in late summer to fall.

**Sweet Potato, wild--**Apply this product as a 2 percent solution using hand-held equipment. Apply to actively growing weeds that are at or beyond the bloom stage of growth. Repeat applications will be required. Allow the plant to reach the recommended stage of growth before retreatment. Allow 7 or more days before tillage.

**Thistle, Canada--**Apply 2 to 3 quarts of this product per acre. Apply to actively growing thistles when most are at or beyond the bud stage of growth. After harvest, mowing or tillage in the late summer or fall, allow at least 4 weeks for initiation of active growth and rosette development prior to the application of this product. Fall treatments must be applied before a killing frost. Allow 3 or more days after application before tillage.

For suppression of Canada thistle, apply 1 quart per acre of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre in the late summer or fall after harvest, mowing or tillage. Allow rosette regrowth to a minimum of 6 inches in diameter before treating. Applications can be made as long as leaves are still green and plants are actively growing at the time of application. Allow 3 or more days after

application before tillage.

**Torpedograss**—Apply 4 to 5 quarts of this product per acre to provide partial control of torpedograss. Apply to actively growing torpedograss when most plants are at or beyond the seedhead stage of growth. Repeat applications will be required to maintain control. Fall treatments must be applied before frost. Allow 7 or more days after application before tillage.

**Other perennials listed on this label**—Apply 3 to 5 quarts of this product per acre. Apply when actively growing and most have reached early head or early bud stage of growth. Allow 7 or more days after application before tillage.

#### TANK MIXTURES

When applied as directed, under the conditions described, MON-35085 plus Banvel or 2,4-D amine will suppress or control the following perennial broadleaf weed:

**Bindweed, field**  
*Convolvulus arvensis*

For suppression, apply 16 ounces of this product plus 0.5 lb a.e. of 2,4-D amine or 0.25 lb a.i. of Banvel, plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications. Applications should be delayed until maximum emergence has occurred and when vines are between 6 to 18 inches in length. These tank mixtures may be applied using aerial application equipment (except in California) in fallow and reduced tillage systems only.

For control, apply 2 quarts of this product plus 0.5 pound a.i. of Banvel in 10 to 20 gallons of water per acre. At these rates, apply using ground application equipment only.

#### Irrigated Agricultural Lands

Apply 1 to 2 quarts of this product plus 1 quart per acre of 2,4-D amine in 10 to 20 gallons of water per acre with ground equipment only for partial control (suppression) of field bindweed. Applications should be made following harvest or in fall fallow ground when the bindweed is actively growing and the majority of runners are 12 inches or more in length. The use of at least one irrigation will promote active bindweed growth.

**Dogbane, hemp**  
*Apocynum cannabinum*

For suppression, apply 16 ounces of this product plus 16 ounces of 2,4-D amine plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications. Delay applications until maximum emergence of dogbane has occurred. For control, apply 4 quarts of this product in 3 to 20 gallons of water using ground application equipment only.

**Smartweed, Swamp**

*Polygonum coccineum*

For control, apply 16 ounces of this product plus 0.5 pounds active ingredient of 2,4-D amine plus 0.5 to 1 percent nonionic surfactant by total volume in 3 to 10 gallons of water per acre in the late summer or fall. Apply when plants are actively growing and most have reached the early bud stage of growth. Allow 7 or more day after application before tillage.

Refer to the specific product labels for crop rotation restrictions and cautionary statements of all products in tank mixture.

**WOODY BRUSH AND TREES**

When applied as recommended under the conditions described, this product CONTROLS or PARTIALLY CONTROLS the following woody brush, plants and trees:

**Alder**

*Alnus spp.*

**Ash\***

*Fraxinus spp.*

**Aspen, quaking**

*Populus tremuloides*

**Bearmat (Bearclover)**

*Chamaebatia foliolosa*

**Birch**

*Betula spp.*

**Blackberry**

*Rubus spp.*

**Broom:**

**French**

*Cytisus monspessulanus*

Scotch

*Cytisus scoparius*

Buckwheat, California\*

*Eriogonum fasciculatum*

Cascara\*

*Rhamnus purshiana*

Catsclaw\*

*Acacia greggi*

Ceanothus\*

*Ceanothus* spp.

Chamise

*Adenostoma fasciculatum*

Cherry:

Bitter

*Prunus emarginata*

Black

*Prunus serotina*

Pin

*Prunus pensylvanica*

Coyote brush

*Baccharis consanguinea*

Creeper, Virginia\*

*Parthenocissus quinquefolia*

Dawberry

*Rubus trivialis*

Elderberry

*Sambucus* spp.

Elm\*

*Ulmus* spp.

Eucalyptus, Bluegum

*Eucalyptus globulus*

Hasardia\*

*Haplopappus squamosus*

**Hawthorn**

*Crataegus* spp.

**Hazel**

*Corylus* spp.

**Honeysuckle**

*Lonicera* spp.

**Kudzu**

*Pueraria lobata*

**Locust, black\***

*Robinia pseudoacacia*

**Madrone**

*Arbutus menziesii*

**Manzanita**

*Arctostaphylos* spp.

**Maple:**

**Red\*\***

*Acer rubrum*

**Sugar**

*Acer saccharum*

**Vine\***

*Acer circinatum*

**Monkey Flower\***

*Mimulus guttatus*

**Oak:**

**Black\***

*Quercus velutina*

**Northern Pin**

*Quercus palustris*

**Post**

*Quercus stellata*

**Red**

*Quercus rubra*



Southern Red  
*Quercus falcata*

White\*  
*Quercus alba*

Persimmon\*  
*Diospyros spp.*

Poison Ivy  
*Rhus radicans*

Poison Oak  
*Rhus toxicodendron*

Poplar\*, yellow  
*Liriodendron tulipifera*

Raspberry  
*Rubus spp.*

Rose, multiflora  
*Rosa multiflora*

Russian-olive\*\*\*  
*Elaeagnus angustifolia*

Sage, black  
*Salvia mellifera*

Sagebrush, California  
*Artemisia californica*

Salmonberry  
*Rubus spectabilis*

Sassafras  
*Sassafras albidum*

Sourwood  
*Oxydendrum arboreum*

Sumac:  
Poison\*  
*Rhus vernix*

Smooth\*  
*Rhus glabra*

Winged\*

*Rhus copallina*

**Sweetgum**  
*Liquidambar styraciflua*

**Swordfern\***  
*Polystichum munitum*

**Tallowtree, Chinese**  
*Sapium sebiferum*

**Tan Oak**  
*Lithocarpus densiflorus*

**Thimbleberry**  
*Rubus parviflorus*

**Tobacco, tree\***  
*Nicotiana glauca*

**Trumpet creeper**  
*Campsis radicans*

**Willow**  
*Salix spp.*

- \* Partial control
- \*\* See below for control or partial control instructions.
- \*\*\* This product is not registered in California for use on Russian-olive.

NOTE: If brush has been mowed or tilled or trees have been cut, do not treat until regrowth has reached the recommended stages of growth.

Apply this product when plants are actively growing and, unless otherwise directed, after full leaf expansion. Use the higher rate for larger plants and/or dense areas of growth. On vines, use the higher rate for plants that have reached the woody stage of growth. Best results are obtained when application is made in late summer or fall after fruit formation.

In arid areas, best results are obtained when application is made in the spring to early summer when brush species are at high moisture content and are flowering.

Ensure thorough coverage when using hand-held equipment. Symptoms may not appear prior to frost or senescence with fall treatments.

Allow 7 or more days after application before tillage, mowing or

372

removal. Repeat treatments may be necessary to control plants regenerating from underground parts or seed. Some autumn colors on undesirable deciduous species are acceptable provided no major leaf drop has occurred. Reduced performance may result if fall treatments are made following a frost.

See "Directions for Use", and "Mixing, Additives, and Application Instructions" sections of this label for labeled uses and specific application instructions.

Apply this product as follows to control or partially control the following woody brush and trees.

**Alder/Dewberry/Honeysuckle/Post Oak/Raspberry**—For control, apply 3 to 4 quarts per acre of this product as a broadcast spray or as a 1 to 1½ percent solution with hand-held equipment.

**Aspen, quaking/Cherry: bitter, black, pin/Hawthorn /Oak, southern red/Sweetgum/Trumpet creeper**— For control, apply 2 to 3 quarts of this product per acre as a broadcast spray or as a 1 to 1½ percent solution with hand-held equipment.

**Birch/Elderberry/Hazel/Salmonberry/Thimbleberry**—For control, apply 2 quarts per acre of this product as a broadcast spray or as a 1 percent solution with hand-held equipment.

**Blackberry**—For control, apply 3 to 4 quarts per acre of this product as a broadcast spray, or 1 to 1½ percent solution with hand-held equipment. Make application after plants have reached full leaf maturity. Best results are obtained when applications are made in late summer or fall. After berries have set or dropped in late fall, blackberry can be controlled by applying a ¾ percent solution of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume with hand-held equipment. For control of blackberries after leaf drop and until killing frost or as long as stems are green, apply 3 to 4 quarts of this product in 10 to 40 gallons of water per acre.

**Broom: French, Scotch**—For control, apply a 1½ to 2 percent solution with hand-held equipment.

**Buckwheat, California/Hazardia/Monkey Flower/ Tobacco, tree**—For partial control of these species, apply a 1 to 2 percent solution of this product as a foliar spray with hand-held equipment. Thorough coverage of foliage is necessary for best results.

**Catsclaw**—For partial control, apply as a 1 to 1½ percent solution with hand-held equipment.

**Coyote Brush**—For control, apply a 1½ to 2 percent solution with

hand-held equipment when at least 50 percent of the new leaves are fully developed.

**Eucalyptus/Bluegum**—For control of eucalyptus resprouts, apply a 2 percent solution of this product with hand-held equipment when resprouts are 6 to 12 feet tall. Ensure complete coverage. Apply when plants are growing actively. Avoid application to drought-stressed plants.

**Kudzu**—For control, apply 4 quarts of this product per acre as a broadcast spray or as a 2 percent solution with hand-held equipment. Repeat applications will be required to maintain control.

**Madrone resprouts**—For suppression or partial control, apply a 2 percent solution of this product to resprouts less than 3 to 6 feet tall. Best results are obtained with spring/early summer treatments.

**Maple, red\*\***—For control, apply as a 1 to 1½ percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed. For partial control, apply 2 to 4 quarts of this product per acre as a broadcast spray.

**Maple, sugar/Oak, northern pin/Oak red**—For control, apply as a 1 to 1½ percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.

**Poison Ivy/Poison Oak**—For control, apply 4 to 5 quarts of this product per acre as a broadcast spray or as a 2 percent solution with hand-held equipment. Repeat applications may be required to maintain control. Fall treatments must be applied before leaves lose green color.

**Rose, multiflora**—For control, apply 2 quarts of this product per acre as a broadcast spray or as a 1 percent solution with hand-held equipment. Treatments should be made prior to leaf deterioration by leaf-feeding insects.

**Sage, black/Sagebrush, California/Chamise/Tallowtree, Chinese**—For control of these species, apply a 1 percent solution of this product as a foliar spray with hand-held equipment. Thorough coverage of foliage is necessary for best results.

**Tan oak resprouts**—For suppression or partial control, apply a 2 percent solution of this product to resprouts less than 3 to 6 feet tall. Best results are obtained with fall applications.

**Willow**—For control, apply 3 quarts of this product per acre as a broadcast spray or as a 1 percent solution with hand-held

equipment.

Other Woody Brush and Trees listed on this label-For partial control, apply .2 to .4 quarts of this product per acre as a broadcast spray or as a 1 to 2 percent solution with hand-held equipment.

375



---

### NONCROP USES

---

See "General Information" and "Mixing, Additives and Application Instructions" sections of this label for essential product performance information and the following "Noncrop" sections for specific recommended uses.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF SPRAY WITH FOLIAGE OF DESIRABLE TURFGRASSES, TREES, SHRUBS, OR OTHER DESIRABLE VEGETATION SINCE SEVERE DAMAGE OR DESTRUCTION MAY RESULT.

NOTE: If spraying areas adjacent to desirable plants, use a shield made of cardboard, sheet metal or plyboard while spraying to help prevent spray from contacting foliage of desirable plants.

Repeat treatments may be necessary to control weeds regenerating from underground parts or seeds.

This product does not provide residual weed control. For subsequent weed control, follow a label-approved herbicide program.

Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

---

### INDUSTRIAL, RECREATIONAL AND PUBLIC AREAS

---

When applied as directed for "Noncrop Uses", under conditions described, this product controls annual and perennial weeds listed on this label growing in areas such as airports, ditch banks, dry ditches, dry canals, fencerows, golf courses, highways, industrial plant sites, lumber yards, parking areas, parks, petroleum tank farms and pumping installations, pipelines, power and telephone rights-of-way, railroads, roadsides, schools, storage areas, other public areas and similar industrial or noncrop areas.

For specific rates of application and instructions for control of various annual and perennial weeds and woody brush and trees, see the "Weeds Controlled" section of this label.

This product may be applied with recirculating sprayers, shielded applicators, or wiper applicators in any noncrop site specified on this label. See the "Selective Equipment part of "Application Equipment and Techniques" section of this label for information on proper use and calibration of this equipment.

---

### TANK MIXTURES FOR

---

(CAUTION!, 7.7%, Sec.2)

1

(9/13/90)

05600131

376

**INDUSTRIAL SITES AND  
FORESTRY SITE PREPARATIONS**

---

■ **MON-35085 plus OUST™** ■

Use on industrial sites including airports, industrial plants, lumberyards, petroleum tank farms, pumping stations, pipelines, railroads, roadsides, storage areas or other similar sites where bare ground is desired.

This tank mixture may also be used as a site preparation treatment for sites to be planted to jack pine, loblolly pine, red pine, slash pine and Virginia pine.

When applied as directed for 'Noncrop Uses' under the conditions described, this product plus Oust provides control of annual weeds listed in the 'Weeds Controlled' section of the label for this product and Oust, and control or partial control of the perennial weeds listed below.

Apply 1 to 2 quarts of this product with 2 to 4 ounces of Oust in 10 to 40 gallons of spray solution per acre as a broadcast spray to actively growing weeds.

This mixture may be applied by aerial equipment in site prep operations. When applied by air, use the recommended rates in 5 to 15 gallons of spray solution per acre.

This product plus Oust tank mixtures may not be applied by air in California.

For control of annual weeds, use the lower rates of these products.

For control of the listed perennial weeds, use the higher rates of both products. For partial control, use the lower rates.

**Bahiagrass**

*Paspalum notatum*

**Bermudagrass\***

*Cynodon dactylon*

**Broomsedge**

*Andropogon virginicus*

**Dock, curly**

*Rumex crispus*

**Dogfennel**

*Eupatorium*

377



*capilliflorum*

**Fescue, tall**

*Festuca arundinacea*

**Johnsongrass\*\***

*Sorghum halepense*

**Poorjoe\*\***

*Diodia teres*

**Quackgrass**

*Agropyron repens*

**Trumpetcreeper\***

*Campsis radicans*

**Vaseygrass**

*Paspalum urvillei*

**Vervain, blue**

*Verbena hastata*

\*Suppression at the higher rates only.

\*\*Control at the lower rates.

Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

<sup>TM</sup>Oust is a trademark of E. I. du Pont de Nemours and Company.

---

**TANK MIXTURES  
NONCROP SITES**

---

When applied as a tank mixture, this product provides control of the emerged annual weeds and partial control of the emerged perennial weeds listed in this label. When applied as a tank mixture, the following residual herbicides will provide preemergence control of the weeds listed in the individual product labels.

MON-35085 plus DIURON

MON-35085 plus KROVAR<sup>TM</sup> I

MON-35085 plus KROVAR II

MON-35085 plus RONSTAR<sup>TM</sup> 50WP

- MON-35085 plus SIMAZINE,  
PRINCEP™ CALIBER™ 90 ■
- MON-35085 plus SIMAZINE 4L ■
- MON-35085 plus SIMAZINE 80W ■
- MON-35085 plus SURFLAN™ 75W ■
- MON-35085 plus SURFLAN AS ■

When tank mixing with residual herbicides, add an agriculturally approved nonionic surfactant at 0.5 to 1 percent by volume of spray solution. See the "Mixing, Additives and Application Instructions" section of this label before preparing these tank mixtures.

Read and carefully observe the label claims, cautionary statements, recommended use rates and all other information on the labels of all products used in these tank mixtures. Use according to the most restrictive label directions for each product in the mixture.

#### CONTROL OF EMERGED WEEDS

**Annual Weeds**—Apply 1 quart per acre of this product in these tank mixtures when weeds are less than 6 inches tall and 1½ quarts per acre when weeds are more than 6 inches tall.

**Perennial Weeds**—For partial control of perennial weeds using these tank mixtures, apply 2 to 5 quarts per acre of this product. Follow the recommendations in the "Weeds Controlled" section of this label for stage of growth and rate of application for specific perennial weeds.

#### PREEMERGENCE WEED CONTROL

The following are the labeled rates for the recommended residual herbicides for noncrop uses:

| PRODUCT                      | RATE/ACRE       |
|------------------------------|-----------------|
| Diuron, Karmex™ DF           | 2 to 8 lbs      |
| Krovar I                     | 4 to 6 lbs      |
| Krovar II                    | 2 to 5 lbs      |
| Ronstar 50WP                 | 4 to 8 lbs      |
| Simazine, Princep Caliber 90 | 5.3 to 11.1 lbs |
| Simazine 80W                 | 6 to 12-1/2 lbs |
| Simazine 4L                  | 4.8 to 10 qts   |

379

Surflan 75W  
Surflan AS

2-2/3 to 5-1/3 lbs  
2 to 4 qts

---

Refer to the individual product labels for specific noncrop sites, rates, carrier volumes and precautionary statements.

Mix only the quantity of spray solution which can be used during the same day. Do not allow these tank mixtures to stand overnight as this may result in reduced weed control.

APPLY THESE TANK MIXTURES THROUGH CONVENTIONAL BROADCAST EQUIPMENT ONLY.

---

<sup>TM</sup>Princep and Caliber is a trademark of Ciba-Geigy Corporation.

<sup>TM</sup>Karmex and <sup>TM</sup>Krovar are trademarks of E.I. du Pont de Nemours and Company.

<sup>TM</sup>Ronstar is a trademark of Rhone-Poulenc, Inc.

<sup>TM</sup>Surflan is a trademark of Elanco Products Company.

---

#### FARMSTEAD WEED CONTROL

---

When applied as directed for 'Noncrop Uses', under conditions described, this product controls undesirable vegetation listed on this label around farmstead building foundations, along and in fences, shelterbelts, and for general nonselective farmstead weed control.

For specific rates of application and instructions for control of various annual and perennial weeds, see the 'Weeds Controlled' section of this label.

---

#### ORNAMENTALS

---

THIS PRODUCT IS NOT RECOMMENDED FOR USE AS AN OVER-THE-TOP BROADCAST SPRAY IN ORNAMENTALS.

When applied as directed for the conditions described for 'Noncrop Uses', this product controls undesirable vegetation listed on this label prior to planting ornamentals, in established ornamentals, and within and around greenhouses and shadehouses.

For specific rates of application and instructions for control of various annual and perennial weeds, see the 'Weeds Controlled' section of this label.

Where repeat applications are necessary, do not exceed 10.6 quarts

of this product per acre per year.

**Site Preparation**—Following preplant applications of this product, any ornamental species may be planted. Precautions should be taken to protect nontarget plants during site preparation applications.

**Greenhouse/Shadehouse Use**—This product may be used to control weeds listed on this label which are growing in greenhouses. Desirable vegetation must not be present during application and air circulation fans must be turned off.

**Postdirected Spray**—Use as a directed spray toward the base of established woody ornamentals species listed below.

**Arborvitae**  
*Thuja spp.*

**Lilac**  
*Syringa spp.*

**Azalea**  
*Rhododendron spp.*

**Magnolia**  
*Magnolia spp.*

**Boxwood**  
*Buxus spp.*

**Maple**  
*Acer spp.*

**Crabapple**  
*Malus spp.*

**Oak**  
*Quercus spp.*

**Euonymus**  
*Euonymus spp.*

**Privet**  
*Ligustrum spp.*

**Fir**  
*Abies spp.*  
*Pseudotsuga spp.*

**Pine**  
*Pinus spp.*

**Hollies**  
*Ilex spp.*

**Spruce**  
*Picea spp.*

**Yew**  
*Taxus spp.*

---

**SILVICULTURAL SITES,  
RIGHTS-OF-WAY  
and CHRISTMAS TREES**

---

**NOTE: NOT RECOMMENDED FOR USE AS AN OVER-THE-TOP BROADCAST SPRAY  
IN SILVICULTURAL NURSERIES, OR CHRISTMAS TREE PLANTATIONS.**

When applied as directed for "Noncrop Uses" under conditions described, this product controls undesirable vegetation listed on this label. This product also suppresses or controls undesirable vegetation listed on this label when applied at recommended rates for release of established coniferous species listed on this label.

For specific rates of application and instructions for control of various brush, annual and perennial weeds, see the "Weeds Controlled" section of this label. For specific rates of application for release of listed coniferous species, see the "Conifer Release" part of this section of the label.

Where repeat applications are necessary, do not exceed 10.6 quarts of this product per acre per year.

**Aerial Application**—This product may be applied using aerial spray equipment for silvicultural site preparation, conifer release and rights-of-way treatments. See the "Application Equipment and Techniques" part of the "Mixing, Additives and Application Instructions" section of this label for information on how to properly spray this product by air.

DO NOT APPLY THIS PRODUCT BY AIR TO RIGHTS-OF-WAY SITES IN THE STATE OF CALIFORNIA.

In order to reduce the aerial application drift hazard to aquatic sites\*, to nontarget sites, or any site containing desirable vegetation, always maintain appropriate buffer zones. A buffer zone of the following minimum distances should be maintained:

- Helicopters using a Microfoil™ boom, a Thru-Valve™ boom (TVB-45), or equivalent drift control systems, should maintain at least a 50-foot buffer zone.
- When using other aerial equipment:
  1. Maintain at least a 75-foot buffer zone for applications using 2 quarts or less per acre of this product.
  2. Maintain at least a 125-foot buffer zone for applications using more than 2 quarts per acre of this product.
  3. Maintain at least a 400-foot buffer zone for applications on rights-of-way when applied from 75 feet or more above ground level.

These distances should be increased if conditions favoring drift exist.

- \* Aquatic sites include all lakes, ponds, and streams used for significant domestic purposes or angling.

™ Microfoil is a trademark of Union Carbide Agricultural Products, Inc.

™ Thru-Valve is a trademark of Waldrum Specialties, Inc.

## SITE PREPARATION

Following preplant applications of this product, any silvicultural species may be planted.

## POSTDIRECTED SPRAY

In established silvicultural sites, use as a spray on the foliage of undesirable vegetation. Care must be exercised to avoid contact of spray, drift or mist with foliage or green bark of desirable species.

## CONIFER RELEASE

For release, apply only where conifers have been established for more than one year. Vegetation should not be disturbed prior to treatment or until visual symptoms appear after treatment. Symptoms of treatment are slow to appear, especially in woody species treated in late fall. Injury may occur to conifers treated for release, especially where spray patterns overlap or the higher rates are applied or when applications are made during periods of active conifer growth. Do not use additional surfactant with conifer release applications.

Applications must be made after formation of final conifer resting buds in the fall or prior to initial bud swelling in spring. Some autumn colors on undesirable deciduous species are acceptable provided no major leaf drop has occurred. Use the following rates for conifer release to control or partially control the weeds listed in the "Weeds Controlled" section of this label.

For release of the following conifer species:

Douglas fir  
*Pseudotsuga menziesii*

Pines\*  
*Pinus spp.*

Fir  
*Abies spp.*

Spruce  
*Picea spp.*

Hemlock  
*Tsuga spp.*

\* Includes all species except eastern white pine, loblolly pine or slash pine.

Apply 1½ to 2 quarts of this product per acre except in Washington and Oregon, west of the crest of the Cascade Mountains. For spring treatments west of the crest of the Cascade Mountains, apply 1 quart of this product per acre before conifer bud swell for control

of annual weeds. For fall treatments in Washington and Oregon, west of the crest of the Cascade Mountains, apply 1 to 1½ quarts of this product per acre before any major leaf drop of deciduous species.

For release of western hemlock, apply 1 quart of this product per acre.

For release of the following conifer species:

Loblolly pine  
*Pinus taeda*

Slash pine  
*Pinus elliottii*

Eastern white pine  
*Pinus strobus*

**Late Season Application**—Apply 1½ to 2 quarts of this product in a minimum of 5 gallons of spray solution per acre during early autumn. Applications made prior to September 1 or when conditions are conducive to rapid growth of conifers will result in potential for increased injury in the form of tip and/or needle burn. Injury may decrease with later applications. Some autumn colors are acceptable at time of application. Apply prior to frost or leaf drop of undesirable plants. Applications made according to label directions will release loblolly pine, eastern white pine and slash pine by reducing competition from the following species:

Ash  
*Fraxinus spp.*

Persimmon  
*Diospyros spp.*

Cherry:  
Black  
*Prunus serotina*

Poplar, yellow  
*Liriodendron tulipifera*

Pin  
*Prunus pensylvanica*

Sassafras  
*Sassafras albidum*

Elm  
*Ulmus spp.*

Sourwood  
*Oxydendrum arboreum*

Hawthorn  
*Crataegus spp.*

Sumac:  
Poison  
*Rhus vernix*

Locust, black  
*Robina pseudoacacia*

Smooth  
*Rhus glabra*

Maple, red  
*Acer rubra*

Winged  
*Rhus copallina*

Oak:  
Black  
*Quercus velutina*

Sweetgum  
*Liquidambar styraciflua*

Post  
*Quercus stellata*

Southern Red  
*Quercus falcata*

White  
*Quercus alba*

Apply only to those sites where woody brush and trees listed in this label constitute the majority of the undesirable species.

■ **MON-35085 plus Oust Tank Mixtures** ■  
**for Conifer Release from Herbaceous Weeds**

To release loblolly pines from herbaceous weeds, tank mixtures of this product with Oust will provide control of annual weeds listed in the "Weeds Controlled" section of this and the Oust label, and partial control of the perennial weeds listed below.

Apply 16 to 24 fluid ounces of this product with 2 to 4 ounces of Oust in 10 to 30 gallons of spray solution per acre. Make application to actively growing weeds as a broadcast spray over the top of the young loblolly pines.

This product plus Oust tank mixtures may not be applied by air in California.

This tank mixture may be applied using aerial equipment. When applying by air, use the recommended rate in 5 to 15 gallons of spray solution per acre.

For control of annual weeds below 12 inches in height (or runner length on annual vines), use the low rates of both products. Use the higher rates of both products when annual weeds are in more advanced stages of growth and approaching flower or seed formation.

Use the higher rates of both products for partial control of the following perennial weeds. Use the lower rates for suppression of growth.

**Bahiagrass**  
*Paspalum notatum*

**Broomsedge**  
*Andropogon virginicus*

**Dock, curly**  
*Rumex crispus*



**Dogfennel**  
*Eupatorium*  
*capilliflorum*

**Fescue, tall**  
*Festuca arundinacea*

**Johnsongrass\*\***  
*Sorghum halepense*

**Poorjoe\*\***  
*Diodia teres*

**Trumpet creeper\***  
*Campsis radicans*

**Vaseygrass**  
*Paspalum urvillei*

**Vervain, blue**  
*Verbena hastata*

\*Suppression at the higher rates only.

\*\*Control at the higher rates.

Pine damage may occur or can be accentuated if treatment takes place when young trees are under stress from drought, flood water, insects or disease.

Read and observe the cautionary statements and all other information appearing on the label of all herbicides used.

#### NOTE TO USER

This product must not be used in areas where adverse impact on Federally designated endangered/threatened plant or aquatic species is likely.

Prior to making applications, the user of this product must determine that no such species are located in or immediately adjacent to the area to be treated.

#### CUT STUMP TREATMENTS

Woody vegetation may be controlled by treating freshly cut stumps of trees and resprouts with this product. Apply this product using suitable equipment to ensure coverage of the entire cambium. Cut vegetation close to the soil surface. Apply a 50 to 100 percent solution of this product to the freshly cut surface immediately after cutting. Delays in application may result in reduced

performance. For best results, applications should be made during periods of active growth and full leaf expansion.

When used according to directions for cut stump application, this product will CONTROL, PARTIALLY CONTROL or SUPPRESS many types of woody brush and tree species, some of which are listed below:

**Alder**  
*Alnus spp.*

**Saltcedar**  
*Tamarisk spp.*

**Eucalyptus/Bluegum**  
*Eucalyptus glotulus*

**Sweetgum**  
*Liquidambar styraciflua*

**Madrone**  
*Arbutus menziesii*

**Tan Oak**  
*Lithocarpus densiflorus*

**Oak**  
*Quercus spp.*

**Willow**  
*Salix spp.*

**Reed, giant**  
*Arundo donax*

#### INJECTION AND FRILL APPLICATIONS

Woody vegetation may be controlled by injection or frill application of this product. Apply this product using suitable equipment which must penetrate into the living tissue. Apply the equivalent of 1 ml of this product per each 2 to 3 inches of trunk diameter. This is best achieved by applying 50 to 100 percent concentration of this material either to a continuous frill around the tree or as cuts evenly spaced around the tree below all branches. As tree diameter increases in size, better results are achieved by applying diluted material to a continuous frill or more closely spaced cuttings. Avoid application techniques that allow runoff to occur from frill or cut areas in species that exude sap freely after frills or cutting. In species such as this, make frill or cut at an oblique angle so as to produce a cupping effect and use undiluted material. For best results, application should be made during periods of active growth and after full leaf expansion.

This treatment WILL CONTROL the following woody species:

**Oak**  
*Quercus spp.*

**Sweetgum**  
*Liquidambar styraciflua*

**Poplar**  
*Populus spp.*

**Sycamore**  
*Platanus occidentalis*

This treatment WILL SUPPRESS the following woody species:

Black gum  
*Nyssa sylvatica*

Hickory  
*Carya spp.*

Dogwood  
*Cornus spp.*

Maple, red  
*Acer rubrum*

---

**TURFGRASSES AND GRASSES  
FOR SEED PRODUCTION**

---

■ **PREPLANT AND RENOVATION** ■

When applied as directed for "Noncrop Uses", under conditions described, this product controls most existing vegetation prior to the planting or renovation of either turfgrasses or grass seed production areas.

For specific rates of application and instructions for control of various annual and perennial weeds, and woody brush and trees, see the "Weeds Controlled" section of this label.

For maximum control of existing vegetation, delay planting to determine if any regrowth from escaped underground plant parts occurs. Where repeat treatments are necessary, sufficient regrowth must be attained prior to application. For warm-season grasses, such as bermudagrass, summer or fall applications provide best control.

DO NOT DISTURB SOIL OR UNDERGROUND PLANT PARTS BEFORE TREATMENT. Tillage or renovation techniques such as vertical mowing, coring or slicing should be delayed for 7 days after application to allow proper translocation into underground plant parts.

**TURFGRASSES**

Where existing vegetation is growing in a field or unmowed situation, apply this product to actively growing weeds at the stages of growth given in the "Weeds Controlled" section of this label.

Where existing vegetation is growing under mowed turfgrass management, apply this product after omitting at least one regular mowing to allow sufficient growth for good interception of the spray.

Desirable turfgrasses may be planted following the above procedures.

## GRASSES FOR SEED PRODUCTION

Apply this product to actively growing weeds at the stages of growth given in the "Weeds Controlled" section of this label prior to planting or renovation of turf or forage grass areas grown for seed production.

DO NOT feed or graze treated areas within 8 weeks after application.

### ■ ANNUAL WEED CONTROL IN DORMANT BERMUDAGRASS AND BAHIAGRASS TURF ■

When applied as directed for "Noncrop Uses" under the conditions described, this product will provide control or suppression of many winter annual weeds and tall fescue for effective release of dormant bermudagrass and bahiagrass turf. Refer to the rate table for MON-35085 alone under the "Release of Bermudagrass and Bahiagrass" section of this label for recommended rates and volumes on the species to be suppressed or controlled. Treat only when turf is dormant and prior to spring greenup. Spot treatments or broadcast applications of this product in excess of 16 ounces per acre may result in injury or delayed greenup in highly maintained turfgrass areas; i.e., golf courses, lawns, etc. DO NOT APPLY TANK MIXTURES of MON-35085 plus Oust in highly maintained turfgrass areas.

---

### RELEASE OF BERMUDAGRASS OR BAHIAGRASS

---

NOTE: Use only in areas where bermudagrass or bahiagrass are desirable ground covers and where some temporary injury or discoloration can be tolerated. Use MON-35085 plus Oust tank mixtures only on railroads, highways, utility plant sites, or other right-of-way areas.

When applied as directed for "Noncrop Uses" under the conditions described, this product will provide control or suppression of many winter annual weeds and tall fescue for effective release of dormant bermudagrass or bahiagrass. This product may be tank-mixed with Oust as recommended for residual control. Make applications to dormant bermudagrass or bahiagrass. MON-35085 plus Oust tank mixture may delay greenup. To avoid delays in greenup and minimize injury, do not add more than 1 ounce per acre of Oust on bermudagrass or more than  $\frac{1}{2}$  ounce per acre on bahiagrass, or treat when these grasses are in a semi-dormant condition.

For best results on winter annuals, treat when plants are in an early growth stage (below 6 inches in height) after most have

germinated. For best results on tall fescue, treat when fescue is in or beyond the 4 to 6-leaf stage.

#### WEEDS CONTROLLED

Rate recommendations for control or suppression of winter annuals and tall fescue are listed below:

Apply the recommended rates of this product alone or as a tank mixture in 10 to 25 gallons of water, plus 0.5 to 1 percent nonionic surfactant by total spray volume per acre.

For the best recommendation for the mixture of weeds within your geographic areas, contact your Monsanto sales representative.

#### WEEDS CONTROLLED OR SUPPRESSED WITH MON-35085 ALONE\*

NOTE: C = Control  
S = Supression

| WEED SPECIES   | MON-35085 OZ/ACRE |    |    |    |    |    |
|--|-------------------|----|----|----|----|----|
|  | 8                 | 12 | 16 | 24 | 32 | 64 |
| Barley, little<br><i>Hordeum pusillum</i>                | S                 | C  | C  | C  | C  | C  |
| Bedstraw, catchweed<br><i>Galium aparine</i>             | S                 | C  | C  | C  | C  | C  |
| Bluegrass, annual<br><i>Poa annua</i>                    | S                 | C  | C  | C  | C  | C  |
| Chervil<br><i>Chaerophyllum</i><br><i>tainturieri</i>    | S                 | C  | C  | C  | C  | C  |
| Chickweed, common<br><i>Stellaria media</i>              | S                 | C  | C  | C  | C  | C  |
| Clover, crimson<br><i>Trifolium</i><br><i>incarnatum</i> | •                 | S  | S  | C  | C  | C  |
| Clover, large hop<br><i>Trifolium campestre</i>          | •                 | S  | S  | C  | C  | C  |

|                            |   |   |   |   |   |   |
|----------------------------|---|---|---|---|---|---|
| Fescue, tall               | • | • | • | • | S | S |
| <i>Festuca</i>             |   |   |   |   |   |   |
| <i>arundinaceae</i>        |   |   |   |   |   |   |
| Geranium, Carolina         | • | • | S | S | C | C |
| <i>Geranium</i>            |   |   |   |   |   |   |
| <i>carolinianum</i>        |   |   |   |   |   |   |
| Henbit                     | • | S | C | C | C | C |
| <i>Lamium amplexicaule</i> |   |   |   |   |   |   |
| Ryegrass                   |   |   |   |   |   |   |
| Italian                    | • | • | S | C | C | C |
| <i>Lolium multiflorum</i>  |   |   |   |   |   |   |
| Speedwell, corn            | S | C | C | C | C | C |
| <i>Veronica arvensis</i>   |   |   |   |   |   |   |
| Vetch, common              | • | • | S | C | C | C |
| <i>Vicia sativa</i>        |   |   |   |   |   |   |

\* These rates apply only to sites where an established competitive turf is present.

WEEDS CONTROLLED OR SUPPRESSED  
WITH MON-35085 PLUS OUST\*

NOTE: C = Control  
S = Suppression

MON-35085 + OUST (OZ/ACRE)

| WEED SPECIES            | MON-35085 | 8             | 12            | 12            | 16            | 16            | 12 | 6 |
|-------------------------|-----------|---------------|---------------|---------------|---------------|---------------|----|---|
|                         | +         | +             | +             | +             | +             | +             | +  | + |
|                         | OUST      | $\frac{1}{4}$ | $\frac{1}{4}$ | $\frac{1}{2}$ | $\frac{1}{4}$ | $\frac{1}{4}$ | 1  | 1 |
| Barley, little          |           | C             | C             | C             | C             | C             | C  | C |
| <i>Hordeum pusillum</i> |           |               |               |               |               |               |    |   |
| Bedstraw, catchweed     |           | C             | C             | C             | C             | C             | C  | C |
| <i>Galium aparine</i>   |           |               |               |               |               |               |    |   |
| Bluegrass, annual       |           | S             | C             | C             | C             | C             | C  | C |
| <i>Poa annua</i>        |           |               |               |               |               |               |    |   |
| Chervil                 |           | C             | C             | C             | C             | C             | C  | C |
| <i>Chaerophyllum</i>    |           |               |               |               |               |               |    |   |
| <i>tainturieri</i>      |           |               |               |               |               |               |    |   |

(CAUTION!, 7.7%, Sec.2)

16

(9/13/90)

391

0710:0131

|  |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|
| Chickweed, common<br><i>Stellaria media</i>        | S | C | C | C | C | C | C |
| Clover, crimson<br><i>Trifolium incarnatum</i>     | S | S | S | S | C | C | C |
| Clover, large hop<br><i>Trifolium campestre</i>    | • | • | S | S | S | C | C |
| Fescue, tall<br><i>Festuca arundinaceae</i>        | • | • | • | • | • | S | S |
| Geranium, Carolina<br><i>Geranium carolinianum</i> | • | S | S | C | C | C | C |
| Henbit<br><i>Lamium amplexicaule</i>               | • | S | C | C | C | C | C |
| Ryegrass, Italian<br><i>Lolium multiflorum</i>     | • | S | S | C | C | C | C |
| Speedwell, corn<br><i>Veronica arvensis</i>        | S | C | C | C | C | C | C |
| Vetch, common<br><i>Vicia sativa</i>               | C | C | C | C | C | C | C |

\* These rates or mixtures of rates apply only to sites where an established competitive turf is present.

#### RELEASE OF ACTIVELY GROWING BERMUDAGRASS

When applied as directed, this product will aid in the release of bermudagrass by providing control of annual species listed in the 'Weeds Controlled' section of this and the Oust label, and suppression or partial control of certain perennial weeds.

For control or suppression of those annual species listed on this label, use 1 to 3 pints of this product as a broadcast spray in 10 to 25 gallons of spray solution per acre. Use the lower rate when treating annual weeds below 6 inches in height (or length of runner in annual vines). Use higher rate as size of plants increases or as they approach flower or seedhead formation.

Use the higher rate of this product for partial control of the following perennial species. Use the lower rates for suppression of growth. For best results, see the 'Weeds Controlled' section of this label for proper stage of growth.

**Bahiagrass**

*Paspalum notatum*

**Bluestem, silver**

*Andropogon saccharoides*

**Fescue, tall**

*Festuca arundinacea*

**Johnsongrass\*\***

*Sorghum halepense*

**Trumpet creeper\***

*Campsis radicans*

**Vaseygrass**

*Paspalum urvillei*

\*Suppression at higher rates only.

\*\*Control at the higher rates.

This product may be tank-mixed with Oust. If tank-mixed, use no more than 1 to 2 pints per acre of MON-35085 herbicide with 1 to 2 ounces of Oust per acre.

Use the lower rates of both mixtures to control annual weeds below 6 inches in height (or runner length in annual vines) that are listed in the "Weeds Controlled" section of this booklet and the Oust label. Use the higher rates as annual weeds increase in size and approach the flower or seedhead stages.

Use the higher rates of this product to provide partial control of the following perennial weeds. Use the lower rates for suppression of growth.

**Bahiagrass**

*Paspalum notatum*

**Bluestem, silver**

*Andropogon saccharoides*

**Broomsedge**

*Andropogon virginicus*

**Dock, curly**

*Rumex crispus*

**Dogfennel**

*Eupatorium capilliflorum*



Fescue, tall  
*Festuca arundinacea*

Johnsongrass\*  
*Sorghum halepense*

Poorjoe\*\*  
*Diodia teres*

Trumpetcreeper\*  
*Campsis radicans*

Vaseygrass  
*Paspalum urvillei*

Vervain, blue  
*Verbena hastata*

\*Suppression at higher rates only.

\*\*Control at the higher rates.

Use only on well-established bermudagrass. Bermudagrass injury may result from the treatment but regrowth will occur under moist conditions. Repeat applications in the same season are not recommended, since severe injury may result.

Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

---

#### COOL SEASON TURF GROWTH REGULATION

---

When applied as directed, this product will suppress growth and seedhead development of listed turf species in industrial sites.

This product is recommended for management of coarse turfs on roadside rights-of-way or other industrial areas. Do not use on high-quality turfs or other areas where some turf color changes cannot be tolerated. Slight turf discoloration may occur but turf will regreen and regrow under moist conditions as effects of this product wear off.

Apply 4 to 6 fluid ounces of this product per acre alone or in a recommended tank mixture. Spray volumes of 10 to 40 gallons per acre are recommended.

When using this product, mix 2 quarts of a nonionic surfactant per 100 gallons of spray solution.

394

This product can be used for growth and seedhead suppression of:

**Tall Fescue  
Smooth Brome**

For best results, apply this product in a recommended tank mixture to actively growing turfgrasses after greenup in the spring of the year. For suppression of seedheads, applications must be made before boot-to-seedhead stage of development. Applications made from seedhead emergence until maturity may result in turf discoloration or injury.

After mowing or removal of seedheads, this product in a recommended tank mixture may also be used to suppress the growth of certain turfgrasses. Allow turf to recover from stress caused by heat, drought, or mowing before making applications. Applications made to turf under stress may increase the potential for discoloration or injury.

**ANNUAL GRASSES**

For growth suppression of some annual grasses such as annual ryegrass, wild barley and wild oats, apply 3 to 4 ounces of this product in 10 to 40 gallons of spray solution per acre. Applications should be made when annual grasses are actively growing and before the seedheads are in the boot stage of development. Treatments made after seedhead emergence may cause injury to the desired grasses.

**TANK MIXTURES**

For the following tank mixtures, consult each product label for weeds controlled and the correct stage of application. Do not treat turf under stress.

**Tank mixtures plus 2,4-D Amine**

For additional weed control benefits, up to 1 quart per acre of 2,4-D amine may be added to the following tank mixtures. Consult the label for 2,4-D amine for weeds controlled.

**TALL FESCUE**

**MON-35085 plus Telar™**

For suppression of tall fescue growth and seedheads, and control or partial control of some annual weeds, apply this tank mixture after greenup and prior to boot-to-seedhead stage of development. Use up to 1/2 ounce of Telar per acre.

This tank mixture can also be applied after mowing or removal of tall fescue seedheads for turf growth suppression. Make only one of the above applications per growing season.

**MON-35085 plus Oust™**

For suppression of tall fescue growth and seedheads, and control or partial control of some annual weeds, apply this tank mixture after greenup and prior to boot-to-seedhead stage of development. Use up to 1/4 ounce of Oust per acre.

**MON-35085 plus Escort™**

This tank mixture can be applied after mowing or removal of tall fescue seedheads for turf growth suppression and control or partial control of some annual weeds. Use up to 1/3 ounce of Escort per acre.

**SMOOTH BROME**

**MON-35085 plus Oust**

For suppression of smooth brome growth and seedheads and control or partial control of some annual weeds, apply this tank mixture after greenup and prior to boot-to-seedhead stage of development. Use up to 1/4 ounce of Oust per acre.

™Escort and Telar are trademarks of E. I. du Pont de Nemours and Company.

---

**BAHIAGRASS SEEDHEAD AND  
VEGETATIVE SUPPRESSION**

---

When applied as directed in the indicated noncrop areas (roadsides, airports, golf course roughs, and plant sites), this product will provide significant inhibition of seedhead emergence and will suppress vegetative growth for a period of approximately 45 days with single applications and approximately 120 days with sequential applications.

Apply this product 1 to 2 weeks after full greenup of bahiagrass or after the bahiagrass has been mowed to a uniform height of 3 to 4 inches. Applications must be made prior to seedhead emergence. Apply 6 fluid ounces per acre of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 10 to 25 gallons of water per acre.

Sequential applications of this product plus 0.5 to 1 percent

nonionic surfactant by total spray volume may be made at approximately 45 day intervals to extend the period of seedhead and vegetative growth suppression. For continued seedhead suppression, sequential applications must be made prior to seedhead emergence. Apply no more than 2 sequential applications per year. As a first sequential application, apply 4 fluid ounces of this product per acre plus nonionic surfactant. A second sequential application of 2 to 4 fluid ounces per acre plus nonionic surfactant may be made approximately 45 days after the last application.

A tank mixture of MON-35085 plus Oust may be applied only on roadsides for seedhead inhibition and vegetative suppression. Apply 6 fluid ounces per acre of this product plus 0.25 ounce per acre of Oust, plus 0.5 to 1 percent nonionic surfactant by total spray volume 1 to 2 weeks following an initial spring mowing. When using MON-35085 plus Oust for suppression of bahiagrass, make only one application per year.

---

## CROPPING SYSTEMS

---

See "General Information" and "Mixing, Additives and Application Instructions" sections of this label for essential product performance information.

See the following "Cropping Systems" sections for specific recommended uses.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF SPRAY WITH FOLIAGE, GREEN STEMS OR FRUIT OF DESIRABLE CROPS, PLANTS, TREES OR OTHER DESIRABLE VEGETATION SINCE SEVERE DAMAGE OR DESTRUCTION MAY RESULT.

Repeat treatments may be necessary to control weeds regenerating from underground parts or seed. Except as otherwise specified on this label, repeat treatments must be made before the crop emerges in accordance with the instructions of this label.

Except as otherwise specified in a crop section of this label, the combined total of all treatments must not exceed 8 quarts per acre of this product per year.

Do not plant subsequent crops other than those on the label for 30 days following application.

For other cropping systems, except following spot treatment in forage grasses and legumes, do not harvest or feed treated crops for 8 weeks after application. Allow 14 days following spot treatment or selective equipment use before grazing domestic livestock or harvesting forage grasses and legumes.

When applied as directed for "Cropping Systems", under the conditions described, this product controls annual and perennial weeds listed on this label, prior to the emergence of direct seeded crops or prior to transplanting of crops listed on this label.

---

ALFALFA\*  
ARTICHOKE,  
JERUSALEM  
ASPARAGUS\*  
ATEMOYA  
BARLEY\*  
BEANS (All)  
BEET GREENS  
BEETS (Red, Sugar)  
BLACKBERRY  
BLUEBERRY  
BOYSENBERRY  
BROCCOLI  
CABBAGE

CARAMBOLA  
CARROT  
CAULIFLOWER  
CELERY  
CHICORY  
CORN (All)\*  
COTTON\*  
CRANBERRY  
CUCUMBER\*\*\*  
CURRANT  
DEWBERRY  
EGGPLANT\*\*\*  
ELDERBERRY  
FORAGE GRASSES\*  
FORAGE LEGUMES\*  
GARLIC\*\*\*  
GOOSEBERRY  
GOURDS\*\*\*  
HORSERADISH  
HUCKLEBERRY  
KALE  
LENTILS  
LETTUCE  
LOGANBERRY  
MELONS\*\*\*  
MUSTARD GREENS  
OATS\*  
OKRA  
OLALLIEBERRY  
ONION  
PARSNIPS  
PEANUTS  
PEAS (All)  
PEPPER\*\*\*  
PINEAPPLE\*\*\*\*\*  
POTATO (Irish, Sweet)  
PUMPKIN\*\*\*  
RADISH  
RASPBERRY (Black, Red)  
RICE\*\*  
RUTABAGA  
SORGHUM (Milo)  
SOYBEANS\*  
SPINACH  
SQUASH\*\*\* (Summer,  
Winter)  
SUGAR APPLE  
TOMATILLO\*\*\*  
TOMATOES\*\*\*\*†  
TURNIPS  
WATERMELON\*\*\*  
WATERCRESS\*\*\*  
WHEAT\*  
YAMS

- \* Spot treatments may be applied in these crops.
- \*\* Do not treat rice fields or levees when the fields contain flood water.
- \*\*\* Apply only prior to planting. Allow at least 3 days between application and planting.
- \*\*\*\* Do not feed or graze treated pineapple forage following application.
- † Use is restricted to direct seeded crops only.

When transplanting this product prior to transplanting crops into plastic mulch, care must be taken to remove residues of this product from the plastic prior to transplanting. Residues can be removed by 1/2 inch natural rainfall or by applying water via a sprinkler irrigation system.

NOTE: This product is not registered in California for use on atemoya, carambola, sugar apples, yams and parsnips.

**Spot Treatment** (Only those crops with '\*' can be spot treated.)—Applications in growing crops must be made prior to heading of small grains and milo, initial pod set in soybeans, silking of corn, boll opening on cotton.

For forage grasses and forage legumes see 'Spot Treatment' in the 'Pastures' section of 'Cropping Systems' in this label.

For dilution and rates of application using boom or hand-held equipment, see 'Mixing, Additives and Application Instructions' and 'Weeds Controlled' sections of this label.

NOTE: FOR FORAGE GRASSES AND FORAGE LEGUMES, NO MORE THAN ONE-TENTH OF ANY ACRE SHOULD BE TREATED AT ONE TIME. FOR ALL OTHER CROPS, DO NOT TREAT MORE THAN 10 PERCENT OF THE TOTAL FIELD AREA TO BE HARVESTED.

THE CROP RECEIVING SPRAY IN TREATED AREA WILL BE KILLED. TAKE CARE TO AVOID DRIFT OR SPRAY OUTSIDE TARGET AREA FOR THE SAME REASON.

**Selective Equipment**—This product may be applied through recirculating sprayers, shielded applicators, or wiper applicators in cotton and soybeans. Shielded and wiper applicators may also be used in tree crops and grapes. Wiper applicators may be used in rutabagas, forage grasses and forage legumes, including pasture sites and sorghum milo.

See the 'Selective Equipment' part of the 'Application Equipment and Techniques' section of this label for information on proper use and calibration of this equipment.

Allow at least the following time intervals between application and harvest:

|   |         |
|---|---------|
| Cotton, Soybeans .....  | 7 days  |
| Apples, Atemoya, Avocado, Carombola,<br>Cherry, Citrus, Grapes, Pear,<br>Rutabagas, Sugar Apple ..... | 14 days |
| Stone Fruit .....   | 17 days |
| Nut Crops .....   | 21 days |
| Sorghum (milo)* .....   | 40 days |

\* Do not use roller applicators. Do not feed or graze treated milo fodder. Do not ensile treated vegetation.

---

#### ASPARAGUS

---

When applied as directed for "Cropping Systems" under the conditions described, this product controls weeds listed on this label in asparagus.

For specific rates of applications and instructions for control of various annual and perennial weeds, see the "Weeds Controlled" section of this label.

**Prior to Crop Emergence**—Apply this product prior to crop emergence for the control of emerged labeled annual and perennial weeds. DO NOT APPLY WITHIN A WEEK BEFORE THE FIRST SPEARS EMERGE.

**Spot Treatment**—Apply this product immediately after cutting, but prior to the emergence of new spears. Do not treat more than 10 percent of the total field area to be harvested. Do not harvest within 5 days of treatment.

**Postharvest**—Apply this product after the last harvest and all spears have been removed. If spears are allowed to regrow, delay application until ferns have developed. Delayed treatments should be applied as directed or shielded spray in order to avoid contact of the spray with ferns, stems or spears. Direct contact of the spray with the asparagus may result in serious crop injury.

**NOTE:** Select and use recommended types of spray equipment for postemergence postharvest applications. A directed spray is any application where the spray pattern is aligned in such a way as to avoid direct contact of the spray with the crop. A shielded spray is any application where a physical barrier is positioned and maintained between the spray and the crop to prevent contact of spray with the crop.

---

#### BERRIES AND SMALL FRUITS

---

For cranberries, apply after fruit set and no later than 30 days before harvest.



For other berries, apply as a preplant broadcast application, or as a directed spray or wiper application post-planting.

Wiper applicators may be used in cranberries in accordance with instructions in this section.

See 'General Information' and 'Mixing, Additives and Application Instructions' sections of this label for essential product performance information.

See the 'Selective Equipment' part of the 'Application Equipment and Techniques' section of this label for information on recommended use and calibration of this equipment.

**For Wick or other Wiper Applicators**—Mix 1 gallon of this product in 4 gallons of water to prepare a 20 percent solution. Apply the solution to emerged weeds. Apply after cranberry fruit set and no later than 30 days before harvest.

In severe infestations, reduce equipment ground speed to ensure that adequate amounts of this product are wiped on the weeds. A second treatment in the opposite direction may be beneficial.

Do not permit herbicide solution to contact desirable vegetation, including green shoots, canes, or foliage.

---

#### FALLOW AND REDUCED TILLAGE SYSTEMS

---

FOR AERIAL APPLICATION IN CALIFORNIA, REFER TO SUPPLEMENTAL LABEL.

Use this product in fallow and reduced tillage systems for control of annual weeds prior to emergence of crops listed in this label. Refer to the 'Weeds Controlled' section of this label for specific rates and instructions. This product may be applied using ground or aerial spray equipment. See the 'Application Equipment and Techniques' section of this label for instructions.

#### TANK MIXTURES

■ MON-35085 plus BANVEL ■  
plus NONIONIC SURFACTANT

■ MON-35085 plus 2,4-D AMINE ■  
plus NONIONIC SURFACTANT

■ MON-35085 plus GOAL™ ■  
plus NONIONIC SURFACTANT

DO NOT APPLY BANVEL, OR 2,4-D AMINE TANK MIXTURES BY AIR IN CALIFORNIA.

The additions of Banvel in a mixture with this product may provide short-term residual control of selected weed species. Some crop injury may occur if Banvel is applied within 45 days of planting. Refer to the Banvel and 2,4-D labels for cropping restrictions and other use instructions.

### MON-35085 plus Goal Tank Mixtures

This product alone or in tank mixtures with Goal plus 0.5 to 1 percent nonionic surfactant by total spray volume will provide control of those weeds listed below.

Make applications when weeds are actively growing and at the recommended stages of growth. Avoid spraying when weeds are subject to moisture stress, when dust is on the foliage or when straw canopy covers the weeds.

#### MON-35085@ 12 oz/acre

|               |      |
|---------------|------|
| Wheat         | 18"* |
| Barley        | 12"  |
| Bluegrass,    |      |
| annual        | 6"   |
| Barnyardgrass | 6"   |
| Rye           | 6"   |

#### MON-35085 16 oz/acre

Annual grasses at  
left plus:

|                  |     |
|------------------|-----|
| Ryegrass,        |     |
| annual           | 6"  |
| Chickweed        | 6"  |
| Groundsel        | 6"  |
| Marestail        | 6"  |
| Rocket, London   | 6"  |
| Shepherdspurse   | 6"  |
| Crabgrass        | 12" |
| Johnsongrass,    |     |
| seedling         | 12" |
| Lambsquarters    | 12" |
| Oats, wild       | 12" |
| Pigweed, redroot | 12" |
| Mustards         | 12" |

MON-35085 12 oz/acre

+

MON-35085 16 oz/acre

+

(CAUTION!, 7.7%, Sec.3)

6

(9/13/90)

403

0830 0131

**GOAL\*\* 2 to 4 oz/acre**

Annual grasses above  
plus:

|                |    |
|----------------|----|
| Cheeseweed,    |    |
| common         | 3" |
| Chickweed      | 3" |
| Groundsel      | 3" |
| Rocket, London | 6" |
| Shepherdspurse | 6" |

**GOAL\*\* 2 to 4 oz/acre**

Annual weeds above  
plus:

|                |     |
|----------------|-----|
| Cheeseweed,    |     |
| common         | 6"  |
| Groundsel      | 6"  |
| Chickweed      | 12" |
| Rocket, London | 12" |
| Shepherdspurse | 12" |

\* Maximum height or length in inches.

\*\* Use the higher rate when weeds approach maximum recommended height or stands are dense.

These recommended tank mixtures may be applied using ground or aerial spray equipment. Refer to the "Weeds Controlled" section of this label for specific rates and instructions.

<sup>TM</sup>Goal is a trademark of Rohm and Haas Company.

**AID TO TILLAGE**

This product, when used in conjunction with preplant tillage practices, will provide control of downy brome, cheat, volunteer wheat, tansy mustard and foxtail. Apply 8 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Make applications when weeds are actively growing and before they are 6 inches in height. Application must be followed by conventional tillage practices no later than 15 days after treatment and before regrowth occurs. Allow at least 1 day after application before tillage. Tank mixtures with residual herbicides may result in reduced performance.

**PASTURES**

Apply this product prior to planting forage grasses and legumes.

**Pasture or Hay Crop Renovation**—When applied as a broadcast spray, this product controls the annual and perennial weeds listed in this label prior to planting forage grasses or legumes. Remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting.

**Spot Treatment**—When applied as a spot treatment as recommended, this product controls annual and perennial weeds listed in this label which are growing in pastures, forage grasses and forage legumes composed of bahiagrass, bermudagrass, bluegrass, brome, fescue, orchardgrass, ryegrass, timothy, wheatgrass, alfalfa or clover.

}  
404

**Wiper Application**—When applied as directed, this product controls or suppresses the weeds listed under 'Wiper Applicators' in the 'Selective Equipment' section of this label.

For spot treatment and wiper application, apply in areas where the movement of domestic livestock can be controlled. No more than one-tenth of any acre should be treated at one time. Further applications may be made in the same area at 30 day intervals. Remove domestic livestock before application and wait 14 days after application before grazing livestock or harvesting.

---

### SUGARCANE

---

When applied as directed for 'Cropping Systems', under the conditions described, this product controls those emerged annual and perennial weeds listed on this label growing in or around sugarcane or in fields to be planted to sugarcane. This product will also control undesirable sugarcane.

**NOTE:** Where repeat treatments are necessary, do not exceed a total of 10.6 quarts of this product per acre per year. Do not apply to vegetation in or around ditches, canals or ponds containing water to be used for irrigation.

**Broadcast Treatment**—Apply this product in 10 to 40 gallons of water per acre on emerged weeds growing in fields to be planted to sugarcane.

For specific rates of application and instructions for control of various annual and perennial weeds, see the 'Weeds Controlled' section of this label.

For removal of last stubble or ratoon cane, apply 4 to 5 quarts of this product in 10 to 40 gallons of water per acre to new growth having at least 7 or more new leaves. Allow 7 or more days after application before tillage.

**Spot Treatment in or Around Sugarcane Fields**—For dilution and rates of application using hand-held equipment, see 'Mixing, Additives and Application Instructions' and 'Weeds Controlled' sections of this label.

For control of volunteer or diseased sugarcane, make a 1 percent solution of this product in water and spray to wet the foliage of vegetation to be controlled.

**NOTE:** When spraying volunteer or diseased sugarcane, the plants should have at least 7 new leaves.

Avoid spray contact with healthy cane plants since severe damage or destruction may result.

Do not feed or graze treated sugarcane forage following application.

---

■                                    **MINIMUM TILLAGE SYSTEMS**                                    ■  
   **Tank Mixtures**  
   **CORN AND SOYBEANS**

---

When applied as recommended under the conditions described, these tank mixtures control many emerged weeds, and give preemergence control of many annual weeds when corn or soybeans will be planted directly into a cover crop, established sod, or in previous crop residues.

Refer to specific product labels for crop rotation restrictions and cautionary statements of all products used in these tank mixtures. For mixing instructions, see the "Mixing, Additives and Application Instructions" section of this label.

**CORN**

- |   |                                       |   |
|---|---------------------------------------|---|
| ■ | MON-35085 plus LASSO®                 | ■ |
| ■ | MON-35085 plus LASSO plus ATRAZINE    | ■ |
| ■ | MON-35085 plus LASSO plus BLADEx™     | ■ |
| ■ | MON-35085 plus LASSO plus SIMAZINE    | ■ |
| ■ | MON-35085 plus ATRAZINE plus SIMAZINE | ■ |

**SOYBEANS**

- |   |   |   |
|---|---|---|
| ■ | MON-35085 plus LASSO®                   | ■ |
| ■ | MON-35085 plus LASSO plus LOROX/LINURON | ■ |
| ■ | MON-35085 plus LASSO plus LEXONE™       | ■ |
| ■ | MON-35085 plus LASSO plus SENCOR™       | ■ |

Apply these tank mixtures in 10 to 40 gallons of water per acre after planting or during planting in such manner that the planter does not disturb the treated soil. Do not apply these mixtures after crop emergence.

When tank mixing with residual herbicides, add an agriculturally approved nonionic surfactant at 0.5 to 1 percent by volume of spray solution.

REDUCED CONTROL MAY RESULT IF THIS PRODUCT IS USED IN TANK MIXTURES CONTAINING FLUID FERTILIZERS.

## CONTROL OF EMERGED WEEDS

**Annual Weeds**—Apply to actively growing grasses and broadleaf weeds. Use 1 quart of this product per acre in these tank mixtures if weeds are less than 6 inches tall. If weeds are over 6 inches tall, apply 1.5 quarts of this product per acre. For emerged annual weeds controlled, see the "Weeds Controlled" section of this label.

**Perennial Weeds**—At normal application rates in minimum tillage systems, perennial weeds may not be at the proper stage of growth for control. See the "General Information" section of this label for the proper stage of growth for perennial weeds.

Use of 2 to 4 quarts of this product per acre in these tank mixtures, under these conditions provides top kill and reduces competition from many emerged perennial grass and broadleaf weeds. For emerged perennial weeds controlled, see the "Weeds Controlled" section of this label.

To obtain the desired stage of growth, it may be necessary to apply this product alone in the late summer or fall and then follow with a label-approved, seedling weed control program at planting.

NOTE: When using these tank mixtures, do not exceed 4 quarts of this product per acre.

USE OF THESE TANK MIXTURES FOR BERMUDAGRASS OR JOHNSONGRASS CONTROL IN MINIMUM TILLAGE SYSTEMS IS NOT RECOMMENDED. For bermudagrass control, follow the instructions under "Control of Perennial Weeds" section of this label and then use a label-approved, seedling weed-control program in a minimum tillage or conventional tillage system. For Johnsongrass control, follow the instructions under "Control of Perennial Weeds" section of this label, and then use a label-approved seedling weed-control program with conventional tillage.

The following are labeled ranges for the recommended preemergence herbicides:

| PRODUCT       | RATES/ACRE |              |
|---------------|------------|--------------|
|               | (QUARTS)   | (POUNDS)     |
| Lasso         | 2 to 4     | •            |
| Atrazine 4L   | 1 to 2     | •            |
| Atrazine 80WP | •          | 1.25 to 2.3  |
| Atrazine 90DF | •          | 1.1 to 2     |
| Bladex 4L     | 1 to 2.2   | •            |
| Bladex 90DF   | •          | 0.7 to 3.3   |
| Simazine 4L   | 1 to 2.2   | •            |
| Simazine 80WP | •          | 1.25 to 2.75 |

|              |              |           |
|--------------|--------------|-----------|
| Linuron 4L   | 0.5 to 1.5   | •         |
| Lorox DF     | •            | 0.75 to 3 |
| Lexone 4L or |              |           |
| Sencor 4F    | 0.25 to 0.75 | •         |
| Lexone or    |              |           |
| Sencor 75DF  | •            | 0.33 to 1 |

Read and carefully observe the label claims, cautionary statements, rates and all other information on the labels of all products. Use according to the most restrictive label directions for each product in the mixture.

®Lasso is a registered trademark of Monsanto Company.

™Bladex and ™Lexone are trademarks of E. I. du Pont de Nemours and Company.

™Sencor is a trademark of the parent company of Farbenfabriken Bayer GmbH, Leverkusen.

#### PREHARVEST APPLICATIONS

When applied as directed under the conditions described, this product controls annual and perennial weeds listed on this label prior to the harvest of COTTON.

**Weed Control**—For specific rates of application and instructions for control of various annual and perennial weeds, see the "Weeds Controlled" section of this label.

**Broadcast Applications**—This product may be applied using either aerial or ground spray equipment. For ground applications with broadcast equipment, apply this product in 10 to 40 gallons of water per acre. For aerial applications, apply this product in 3 to 15 gallons of water per acre.

To control Johnsongrass using multiple nozzle-directed spray equipment, apply 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 10 to 20 gallons of water per acre. Ensure complete coverage.

For partial control of field bindweed, apply one quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 40 gallons of water per acre. Apply when bindweed is actively growing and 12 inches or greater in length. Reduced performance may result if bindweed is under drought stress.

#### Tank Mixtures

MON-35085 plus Def™ 6

MON-35085 plus Folex™

408

When applied as recommended under the conditions described, these tank mixtures control annual and perennial weeds listed on this label prior to the harvest of cotton. For application guidelines, precautions and defoliant rates, refer to the supplemental label for cotton harvest aid.

**Timing of Application**—Apply this product or these tank mixtures for preharvest weed control after 60 percent of the cotton bolls have opened.

**NOTE:** DO NOT APPLY TO CROPS GROWN FOR SEED. Allow a minimum of 7 days between application and harvest.

Do not feed or graze treated cottonseed forage or hay following preharvest applications.

<sup>TM</sup>Def is a trademark of Mobay Chemical Corporation.

<sup>TM</sup>Folex is a trademark of Rhone-Poulenc, Inc.

---

#### TREE AND VINE CROPS

---

This product is recommended for weed control in established groves, vineyards, or orchards, or for site preparation prior to transplanting crops listed in this section. Applications may be made with boom equipment, CDA, shielded sprayers, hand-held and high-volume wands, lances, or orchard guns, or with wiper applicator equipment, except as directed in this section. See the "Application Equipment and Techniques" section of this label for specific information on use of equipment.

When applying this product, refer to the "Weeds Controlled" section of this label for recommended rates to be used.

#### NOTE

Repeat treatments may be necessary to control weeds originating from underground parts of untreated weeds or from seeds. This product does not provide residual weed control. For subsequent weed control, follow a program using residual herbicides or use repeated applications of this product. Do not apply more than 10.6 quarts of this product per acre per year.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF HERBICIDE SOLUTION, SPRAY, DRIFT, OR MIST WITH FOLIAGE OR GREEN BARK OF TRUNK, BRANCHES, SUCKERS, FRUIT, OR OTHER PARTS OF TREES OR VINES. CONTACT OF THIS PRODUCT WITH OTHER THAN MATURED BROWN BARK CAN RESULT IN SERIOUS CROP DAMAGE.

AVOID PAINTING OUT STUMPS WITH THIS PRODUCT AS INJURY RESULTING FROM ROOT GRAFTING MAY OCCUR IN ADJACENT TREES.



Reduced control may result when applications are made to annual or perennial weeds that have been mowed, grazed or cut and have not been allowed to regrow to the recommended stage for treatment.

For specific rates of applications and instructions, see the "Weeds Controlled" section of this label.

---

■                    TANK MIXTURES                    ■  
                    TREE AND VINE CROPS                   

---

When applied as a tank mixture, this product provides control of the emerged annual weeds and partial control of the emerged perennial weeds listed in this label. The following residual herbicides will provide preemergence control of those weeds listed in the individual product labels.

- MON-35085 plus GOAL™ 1.6E                    ■
- MON-35085 plus KARMEX™ DF                    ■
- MON-35085 plus KROVAR™ I                    ■
- MON-35085 plus KROVAR™ II                    ■
- MON-35085 plus SIMAZINE,  
                    PRINCEP CALIBER™ 90                    ■
- MON-35085 plus SIMAZINE 4L                    ■
- MON-35085 plus SIMAZINE 80W                    ■
- MON-35085 plus SOLICAM™ 80DF                    ■
- MON-35085 plus SURFLAN™ AS                    ■
- MON-35085 plus SURFLAN 75W                    ■
- MON-35085 plus SIMAZINE  
(80W, or 4L, or PRINCEP CALIBER 90)  
                    plus SURFLAN (AS or 75W)                    ■
- MON-35085 plus GOAL (1.6E)  
                    plus SURFLAN (AS or 75W)                    ■
- MON-35085 plus GOAL (1.6E)  
                    plus SIMAZINE  
(80W, or 4L, or PRINCEP CALIBER 90)\*                    ■
- MON-35085 plus GOAL (1.6E)  
                    plus SURFLAN (AS or 75W)  
                    plus simazine (80W, 4L,  
                    or PRINCEP Caliber 90)                    ■



\*See the MON-35085 plus Goal plus simazine tank mixture section below for specific use instructions.

When tank-mixing with residual herbicides, add an agriculturally approved nonionic surfactant at 0.5 to 1 percent by volume of spray solution.

Do not apply these tank mixtures in Puerto Rico.

#### CONTROL OF EMERGED WEEDS

**Annual Weeds**—Apply 1 quart per acre of this product in these tank mixtures, when weeds are less than 12 inches tall. For weeds greater than 12 inches tall, apply 1.5 quarts per acre.

**Perennial Weeds**—For partial control of perennial weeds using these tank mixtures, apply 2 to 5 quarts per acre of this product. Follow the recommendations in the "Weeds Controlled" section of this label for stage of growth and rate of application for specific perennial weeds.

#### PREEMERGENCE WEED CONTROL

The following are the labeled rates for the recommended residual herbicides:

| PRODUCT                      | RATE/ACRE           |
|------------------------------|---------------------|
| Goal 1.6E                    | 1.25 to 5 qts.      |
| Karmex DF                    | 2 to 8 lbs.         |
| Krovar I                     | 2 to 8 lbs.         |
| Krovar II                    | 2 to 8 lbs.         |
| Simazine, Princep Caliber 90 | 1.1 to 10.6 lbs.    |
| Simazine, 80W                | 1½ to 12 lbs.       |
| Simazine 4L                  | 2 to 9.6 qts.       |
| Solican 80DF                 | 2½ to 5 lbs.        |
| Surflan AS                   | 2 to 4 qts.         |
| Surflan 75W                  | 2-2/3 to 5-1/3 lbs. |

**NOTE:** These residual herbicides may provide post-emergence activity on certain annual weed species.

Refer to the individual product labels for specific crops, rates, geographical restrictions and precautionary statements.

Read and carefully observe the label claims, cautionary statements, rates and all other information on the labels of all products.

For specific rates of application and instructions see the "Weeds Controlled" section of this label.

■ MON-35085 plus GOAL ■

MON-35085 alone and MON-35085 plus Goal tank mixtures will control or suppress annual weeds listed below.

Apply the recommended rates of MON-35085 or MON-35085 plus Goal tank mixtures plus 0.5 to 1 percent nonionic surfactant by spray volume in 3 to 10 gallons of water per acre. Apply when weeds are actively growing and less than 6 inches in height. If weeds are under drought stress, irrigate prior to application.

# RECOMMENDED RATES AND WEEDS CONTROLLED

C = Control

S = Suppression

| WEEDS<br>SPECIES             | MON-35085 rate<br>(fl oz/acre) |    |    | MON-35085+Goal<br>(fl oz/acre) |
|------------------------------|--------------------------------|----|----|--------------------------------|
|                              | 8                              | 12 | 16 | 12 + 4 to 16                   |
| Bluegrass,<br>annual         | C                              | C  | C  | C                              |
| Barley                       | C                              | C  | C  | C                              |
| Cheeseweed,<br>common (3")   | S                              | S  | S  | C                              |
| Rocket, London               | S                              | S  | C  | C                              |
| Shepherdspurse               | S                              | S  | C  | C                              |
| Chickweed                    | S                              | C  | C  | C                              |
| Fleabane,<br>flaxleaf        | S                              | C  | C  | C                              |
| Red Maids                    | S                              | C  | C  | C                              |
| 16 + 4 to 16                 |                                |    |    |                                |
| Barnyardgrass                | S                              | C  | C  | C                              |
| Cheeseweed,<br>common (3-6") | S                              | S  | S  | C                              |
| Crabgrass                    | S                              | S  | C  | C                              |
| Groundsel,<br>common         | S                              | S  | C  | C                              |
| Junglerice                   | S                              | S  | C  | C                              |
| Lambsquarters                | S                              | S  | C  | C                              |
| Marestail                    | S                              | S  | C  | C                              |
| Pigweed,<br>redroot          | S                              | S  | C  | C                              |
| Ryegrass,<br>common          | S                              | S  | C  | C                              |
| Sowthistle,<br>annual        | S                              | S  | C  | C                              |
| Purslane,<br>common          | S                              | S  | C  | C                              |
| Nettle,<br>stinging          | S                              | S  | C  | C                              |
| Filaree                      | S                              | S  | S  | S                              |

MON-35085 plus GOAL plus SIMAZINE

(California only)

MON-35085 may be tank-mixed with Goal plus simazine for broad-spectrum postemergence and preemergence control. Refer to the following table for approved crops and rate ranges for each product in this tank mix. Refer to the individual product labels for weeds controlled, geographical restrictions, precautionary statements and specific use rates.

| RATE RANGES* |                       |                          |                               |
|--------------|-----------------------|--------------------------|-------------------------------|
| CROP         | MON-35085<br>(quarts) | GOAL<br>1.6E<br>(quarts) | SIMAZINE<br>80W**<br>(pounds) |
| Grapes       | 1 to 1.5              | 1.25 to 5                | 2.5 to 5                      |
| Almond       | 1 to 1.5              | 1.25 to 5                | 1.25 to 2.5                   |

Use equivalent rate of Princep Caliber 90 or simazine 4L.

\*Rate dependent on weeds present.

\*\*Rate dependent on soil type and weeds present.

MON-35085 plus GOAL plus SIMAZINE/SURFLAN

This product plus Goal, applied alone or as a three-way or four-way with simazine and/or Surflan, will provide postemergence control of those weeds listed below when applied as recommended.

Refer to individual product labels for preemergence rates, weeds controlled, precautionary statements and other important information.

Apply these tank mixtures in 3 to 40 gallons of water. Add 0.5 to 1 percent nonionic surfactant by total spray volume to the spray solution.

| WEEDS CONTROLLED      |                               |                                   |
|-----------------------|-------------------------------|-----------------------------------|
| Weed Species          | Maximum<br>Height<br>(inches) | MON-35085 + Goal<br>(quarts/acre) |
| Barley,<br>wild       | 4                             | 0.5 to 1 + 0.5 to 5               |
| Bluegrass,<br>annual  | 4                             | 0.5 to 1 + 0.5 to 5               |
| Cheeseweed,<br>common | 4                             | 0.5 to 1 + 0.5 to 5               |

|                        |    |                     |
|------------------------|----|---------------------|
| Chickweed,<br>common   | 4  | 0.5 to 1 + 0.5 to 5 |
| Flaxleaf,<br>fleabane  | 4  | 0.5 to 1 + 0.5 to 5 |
| Groundsel,<br>common   | 4  | 0.5 to 1 + 0.5 to 5 |
| Marestail              | 4  | 0.5 to 1 + 0.5 to 5 |
| Pineappleweed          | 4  | 0.5 to 1 + 0.5 to 5 |
| Rocket, London         | 4  | 0.5 to 1 + 0.5 to 5 |
| Shepherdspurse         | 4  | 0.5 to 1 + 0.5 to 5 |
| Sowsthistle,<br>annual | 4  | 0.5 to 1 + 0.5 to 5 |
| Cheeseweed,<br>common  | 12 | 1 to 1.5 + 1 to 5   |
| Nettle,<br>stinging    | 12 | 1 to 1.5 + 1 to 5   |
| Filaree                | 12 | 1 to 1.5 + 1 to 5   |

<sup>TM</sup>Solicam is a trademark of Sandoz, Inc.

#### PERENNIAL GRASS SUPPRESSION ORCHARD FLOORS

When applied as directed, this product will suppress vegetative growth as indicated below.

##### Bahiagrass

This product will provide significant inhibition of seedhead emergence and will suppress vegetative growth for a period of approximately 45 days with a single application and approximately 120 days with sequential applications. Apply this product 1 to 2 weeks after full green-up or after mowing to a uniform height of 3 to 4 inches. Applications must be made prior to seedhead emergence. Apply 6 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 10 to 25 gallons of water per acre.

Sequential applications of this product plus nonionic surfactant may be made at approximately 45-day intervals to extend the period of seedhead and vegetative growth suppression. For continued seedhead suppression, sequential applications must be made prior to seedhead emergence. Apply no more than 2 sequential applications per year. As a first sequential application, apply 4 fluid ounces of this product plus nonionic surfactant. A second sequential application of 2 to 4 fluid ounces may be made approximately 45 days after the last application.

##### Bermudagrass

For burndown, apply 1 to 2 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 20 gallons of water per acre. Use 1 quart of this product in 3 to 20

414

gallons of water per acre east of the Rocky Mountains. Use 1 to 2 quarts of this product in 3 to 10 gallons of water per acre west of the Rocky Mountains. Use this treatment only if reduction of the bermudagrass stand can be tolerated. When burndown is required prior to harvest, allow at least 21 days to ensure sufficient time for burndown to occur.

**Suppression only (east of the Rocky Mountains)**—Apply 6 to 16 fluid ounces plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 20 gallons of water per acre no sooner than 1 to 2 weeks after full green-up. Mowing prior to application may occur provided a minimum height of 3 inches is maintained. Rates of 6 to 10 fluid ounces plus nonionic surfactant should be used in shaded conditions or where a lesser degree of suppression is desired. Sequential applications may be made when regrowth occurs and bermudagrass injury and stand reduction can be tolerated.

**Suppression only (west of the Rocky Mountains)**—Apply 16 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre up to 6 inches in height and no sooner than 1 to 2 weeks after full green-up. Mowing prior to application may occur provided a minimum height of 3 inches is maintained. Sequential applications may be made when regrowth occurs and bermudagrass injury and stand reduction can be tolerated.

#### Cool Season Grass Covers

For suppression of tall fescue, fine fescue, orchardgrass and quackgrass, apply 8 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 10 to 20 gallons of water per acre. For best suppression, add ammonium sulfate to the spray solution at a rate of 2 percent by weight or 17 pounds per 100 gallons of spray solution.

For suppression of Kentucky bluegrass covers, apply 6 fluid ounces of this product plus nonionic surfactant. Do not add ammonium sulfate.

For best results, mow cool-season grass covers in the spring to even their height and apply the recommended rate of this product 3 to 4 days after mowing. Avoid treating cool season grass covers under poor growing conditions, such as drought stress (drip irrigation), disease or insect damage.

#### **LOW VOLUME APPLICATION (FLORIDA AND TEXAS)**

For burndown or control of listed perennial weeds, apply the recommended rates of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 20 gallons of water per acre. Where weed foliage is dense, use 10 to 20 gallons of water per acre.

Apply when weeds are actively growing and at the growth stages listed in the "Perennial Weeds Controlled" section of this label. If perennial weeds are mowed, allow weeds to regrow to the recommended stage of growth.

S = Suppression  
PC = Partial control

B = Burndown  
C = Control

| WEED<br>SPECIES         | MON-35085 RATE PER ACRE |       |       |       |
|-------------------------|-------------------------|-------|-------|-------|
|                         | 1 qt                    | 2 qts | 3 qts | 5 qts |
| Bermudagrass            | B                       | •     | PC    | C     |
| Guineagrass             |                         |       |       |       |
| Texas and Florida Ridge | B                       | C     | C     | C     |
| Florida Flatwoods       | •                       | B     | C     | C     |
| Paragrass               | B                       | C     | C     | C     |
| Torpedograss            | S                       | •     | PC    | C     |

#### TREE CROPS

**Citrus\*:** citron, grapefruit, kumquat, lemon, lime, orange, tangelo, tangerine.

**Nuts\*\*:** almond, filbert, macadamia, pecan, pistachio, walnut.

**Pome Fruit\*:** apple, pear.

**Stone Fruit\*\*\*:** apricots, cherries, nectarines, olives, peaches, plums/prunes.

For cherries, any application equipment listed in this section may be used in all states.

For citron and olives, apply as a directed spray only.

Any application equipment listed in this section may be used in apricots, nectarines, peaches, and plums/prunes growing in Arizona, California, Colorado, Idaho, Kansas, Kentucky, New Jersey, North Dakota, Oklahoma, Oregon, Texas, Utah, and Washington, except for peaches grown in the states specified in the following paragraph. In all other states use wiper equipment only.

For PEACHES grown in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, and Tennessee only, apply with a shielded boom sprayer or shielded wiper applicator which prevents any contact of this product with the foliage or bark of trees. Apply no later than 90 days after first bloom. Applications made after this time may result in severe damage. Remove suckers and low hanging limbs at least 10 days prior to application. Avoid applications near trees with recent pruning wounds or other mechanical injury. Apply only near



trees which have been planted in the orchard for 2 or more years. EXTREME CARE MUST BE TAKEN TO ENSURE NO PART OF THE PEACH TREE IS CONTACTED.

**Tropical Fruit:** acerola, atemoya\*, avocado\*, banana (plantains), carambola\*, coffee\*\*\*\*, figs\*, guava, mango\*, papaya, sugar apple\*, tea. Allow a minimum of 1 day between last application and harvest of guava and papaya. In coffee and banana, delay applications 3 months after transplanting to allow the new coffee or banana plant to become established.

NOTE:

- \* Allow a minimum of 14 days between last application and harvest.
- \*\* Allow a minimum of 21 days between last application and harvest of these crops.
- \*\*\* Allow a minimum of 17 days between last application and harvest.
- \*\*\*\* Allow a minimum of 28 days between last application and harvest.

---

VINE CROPS

---

**Kiwi Fruit\***

**Grapes:\*** Any variety of table, wine, or raisin grape may be treated with any equipment listed in this section.

In the northeast and Great Lakes regions, applications must be made prior to the end of bloom stage of grapes to avoid injury.

- \* Applications should not be made when green shoots, canes, or foliage are in the spray zone.
- \* Allow a minimum of 14 days between last application and harvest.

---

CALIFORNIA

---

MON-35085 herbicide has been approved by the U.S. Environmental Protection Agency and by the state of California for the uses, crops and sites listed in this label. With the exception of these items, this booklet contains the material approved by California.

These use conditions, crops and sites may not be treated with this product in California until approval is received:

- Cool season true growth regulation

EPA Reg. No. 524-XXX

This product has been approved for use in California except as stated otherwise on page 122.

---

In case of an emergency involving this product,  
Call Collect, day or night, (314) 694-4000.

---

©MONSANTO COMPANY 1990

MONSANTO COMPANY  
AGRICULTURAL PRODUCTS  
ST. LOUIS, MISSOURI, 63167 U.S.A.

JUN 20 1990

Dr. Kevin F. Cannon  
Monsanto Company  
700 14th St., NW  
Washington, DC 20005

Dear Dr. Cannon:

Subject: Mon-35085  
EPA File Sym. 524-UUL  
Your submission dated September 19, 1990

~~The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act is not acceptable for the following reasons:~~

1. The data which was submitted indicates that the signal word must be "WARNING". Please delete the signal word "CAUTION" from the label. The precautionary statements must be revised to include "Causes substantial but temporary eye injury. Harmful if inhaled. Do not get in eyes or breathe spray mist or get in or on clothing. Wear goggles, face shield or safety glasses. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse."

2. The statement of practical treatment must be revised as follows:

"If in eyes, hold eyelids open and flush with plenty of water.

If swallowed, drink promptly a large quantity of milk, egg white, or gelatin in solution. If these are not available, drink large quantities of water.

If inhaled, remove victim to fresh air, if not breathing, give artificial respiration, preferably mouth to mouth. Get medical attention."

3. This will acknowledge receipt of your Confidential Statement of Formula. This information is acceptable and will be placed in our file for your product.

4. The acute oral, dermal, inhalation toxicity, primary dermal irritation and dermal sensitization studies are acceptable as guideline data and support the product.

Of the seven eye irritation studies, two are considered guideline data, three are considered core minimum data, and two are considered supplementary data. Six of the studies were conducted using irrigation of the eyes at 24 hrs. but the reasons necessitating this are not given. The guidelines indicate that "at 24 hrs. a washout may be used if considered appropriate"

a. (SB89300) The initial study performed at Springborn Laboratories using three animals is considered supplementary data only because sufficient number of animals were not used.

b. (YO-90-291) The study conducted at Younger Labs did not specify any methodology. It stated that at 24 hrs. 5/6 animals had areas of barely perceptible corneal dullness. There is no indication of confirmatory findings with fluorescein stain. The number of males and females used is not specified, rather it is stated that six animals in "mixed sex" were used. The source of the animals and the age is not given. There is no statement of quality assurance. 40 CFR ChI (7-1-89) 160.185 subpart H states that each study report must include:

#7- a description of the test system used. the sex, body weight range, source of supply, species, strain and substrain and age of animals and procedure used for identification.

#8- a description of the dosage, dosage regimen and route of administration.

#9- a description of all circumstances that may have effected the quality and integrity of the data.

#11- the statement prepared and signed by the quality assurance unit as describe in 160.35 (b)(7). The study did not comply with all or parts of the proceeding requirements.

C. SE90-003- The second study performed at Springborn Labs is considered minimum data because the study was not continued beyond 7 days as there was opacity in 2/6 animals at that time. If continued beyond 7 days it would have shown that eye damage was reversed by day 21. The study is acceptable support for the product.

D. BD90-123- The study performed at Bio/Dynamics is considered core minimum data for the following reasons:

1. Positive fluorescein staining signifies opacity and must be recorded as such.

2. Ulceration is considered part of opacity according to Draize, and must be included in opacity and not treated as a separate entity.

Absence of staining at 72 hrs. does not necessarily mean healing, it does not mean healing at later intervals either, as cornea heals from surface down and lesion can be present without staining. Ulceration is severe ocular lesion and does not normally heal within 48 hrs.

E. WIL 90-091- The study performed at WIL Research used a pen light to evaluate the eye irritation. This ~~is not adequate source of light to only small lesions are~~ present, particularly if fluorescein confirmation of findings were delayed until 72 hrs. Small lesions can and will heal within that period of time. Also, the eyes should have been washed with saline rather than tap water with contaminants and irritants.

The presentation of data from six different sources does not necessarily mean that the finding of opacity at 7 days is invalid or negligible. Particularly considering that all tests were not performed in the identical manner:

1. All were evaluated by different people with various backgrounds of training and all were subjective to some extent.

2. No justification is given for washing the eyes at 24 hrs. The eyes normally are irrigated at 24 hrs. while examination by fluorescein is made. According to guidelines washing at 24 hrs. is acceptable only if it is found to be necessary. The presence of opacity in spite of washing at 24 hrs. makes the opacity more significant.

3. The source of light was not uniform. Adequate and proper illumination is necessary for accurate evaluation.

4. Fluorescein was not always used at 24 hrs. to confirm findings.

Unexpected findings of opacity in the eyes of two rabbits at 7 days is not unusual nor warrants repeated testing at other facilities. A third test at Springborn would have been not enlightening and significant because so many variables would not have been introduced. No inconsistencies are found between the two studies at Springborn. The first three animals did not show opacity at 7 days during the initial study, however, 1/3 or 2/6 showed opacity in the second. This is not that far removed from the original findings. The study that showed 2/6 opacity at 7 days is a valid study and must be taken into account as long as it is not demonstrated why the unexpected results from a test should not be accepted regardless of subsequent studies not showing opacity at 7 days. If the total number of animals tested (33) show 6% (2/33) of animals with opacity at 7 days, the probability of eye irritation is present, therefore the toxicity of eye irritancy must be considered to be in category II.

Because of the importance of your application, we would like to have your reply within 15 days. However, if you need additional time to reply, or if you have any further questions concerning this letter, please contact me at (703) 557-1800.

Sincerely yours,

Robert J. Taylor  
Product Manager 25  
Fungicide-Herbicide Branch  
Registration Division (H7505C)

RD:RTaylor:ejg:12/20/90:557-1800

# Monsanto

Monsanto Company  
Suite 1100  
700 14th Street, N.W.  
Washington, D.C. 20005

September 19, 1990

Document Processing Desk (APPL)  
Office of Pesticide Programs - H7504C  
U.S. Environmental Protection Agency  
1921 Jefferson Davis Highway  
Crystal Mall #2, Room 226A  
Arlington, Virginia 22202

ATTENTION: Robert J. Taylor  
Product Manager (25)

SUBJECT: Request for Registration of a New Product Containing  
Glyphosate: MON-35085 herbicide.

Dear Sir:

Roundup® herbicide (EPA Reg. No. 524-308), a formulation containing the isopropylamine salt of glyphosate, is registered for use in both agricultural and non-agricultural sites using a variety of application techniques.

For the past several years Monsanto has been working on the development of a new liquid formulation of glyphosate which would reduce the eye irritancy normally found with Roundup. MON-35085 herbicide is that product.

MON-35085 contains the isopropylamine salt of glyphosate in the same concentration as Roundup (41.0%), but with half the surfactant load [REDACTED]. The reduction in surfactant concentration appears to reduce the eye irritation observed in the current Roundup formulation and in our opinion requires a "CAUTION" signal word.

Since the only change in the formulation is the surfactant concentration, all other data necessary to support the registration of glyphosate and the agricultural and non-agricultural uses remain unchanged.

The enclosed eight-volume submission, designated R.D. 1001,

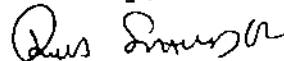
\*Inert ingredient information may be entitled to confidential treatment\*

423

contains product chemistry, acute toxicity, label use instructions and the administrative materials required for the registration of MON-35085. We ask the EPA to approve this submission as quickly as possible.

If you have any questions regarding this request, please contact Dr. Kevin Cannon or me.

Sincerely,



Russell P. Schneider, Ph.D.  
U.S. and International  
Registration Director

cc: K. Cannon  
I. O'Connor  
N. Yates-Parker





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF  
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: Request To Expedite Review Product Chemistry/Precautionary Label  
Review for Product Chemistry and Precautionary Label

EPA Identification No. 524-UUL - S384917

Submitted to RSB on: 10/31/90 by PM 25

-----DECISION MEMORANDUM-----

FROM: Frank Sanders, Chief *F Sanders 11.11*  
Fungicide-Herbicide Branch

TO: Ferial Bishop, Chief  
Registration Support Branch

This is a request to expedite the review for the subject application.  
We have checked the applicable box(es) which identifies the reviews we wish  
to be done on an expedited basis.

☒ Product Chemistry Review

☒ Precautionary Labeling Review

We would appreciate getting these reviews no later than 12/14/90.

An expedite is being requested for the following reason(s).

The Agency has data indicating that the precautionary labeling for their  
registered product should be changed to "Danger". This pending product  
will replace the formulation which must be re-labeled to "Danger".

CONCUR: *F Bishop*

DO NOT CONCUR: \_\_\_\_\_

DATE: 11/15/90

425

DATE: 11/21/90 PRODUCT CHEMIST/REVIEWER: MICHAEL J. CLIFFORD

PAGE: 1 OF      CONCURRED BY:     

COMPANY: MONSANTO COMPANY EPA REG. NO: 524-UUL

PRODUCT NAME: MON 35085

MANUFACTURING PROCESS INFORMATION IS NEXT PAGE

TO PM NO: 25 ACTION CODE: EXPEDITE

BACKGROUND: MON 35085 is a reformulation of ROUNDUP HERBICIDE  
which contains half the surfactant load reducing the  
eye irritation observed in ROUNDUP.

ACTIVE INGREDIENT LABEL CLAIM/ LATEST LABEL CLAIM (DATED / / )

GLYPHOSATE, N-(PHOSPHONOETHYL) GLYCINE

IN THE FORM OF ITS ISOPROPYLAMINE SALT (41.0%)

REFERENCES USED:     

FOOD USE ( ) INERTS CLEARED C( ), D( ) NON FOOD USE (X)  
CFR 21 PARTS 170-199 ( ) TOXIC INERTS LIST 1( ), 2( )

COMMENTS:

a) In reference to CSF dated 8/16/90, the applicant has not provided the EPA registration number for the technical active ingredient for the isopropylamine salt of glyphosate. NOTE TO PM: In a telephone conversation on 11/20/ between Robert Street of Monsanto Co. and M. Clifford, the applicant <sup>has</sup> agreed to submit a revised CSF based on EPA REG. NO. 524-333 as the technical source product for the isopropylamine salt of glyphosate.

b) The product chemistry data are acceptable and comply with the requirements of 40 CFR Parts 158.150 through 158.190.

c) Storage stability data for one year at ambient warehouse conditions must be submitted to EPA within 15 months after granting the registration.

Michael J. Clifford 11/21/90

426



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF  
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: EPA Reg. No./File Symbol 524-UUL  
Glyphosate/MON-35085 Herbicide

FROM: Lucy D. Markarian <sup>11/14/90</sup>  
Precautionary Review Section **E 12/14/90**  
Registration Support Branch  
Registration Division (H75-05C)

TO: Robert Taylor/Vickie Walters (PM 25)  
Fungicide-Herbicide  
Registration Division (H75-05C)

APPLICANT: Monsanto Company  
Suite 1100  
700 14<sup>th</sup> street  
Washington, D.C. 20005

FORMULATION FROM LABEL:

| Active Ingredient(s):                                      | % by wt.     |
|--|--------------|
| <u>Glyphosate, N-(phosphonomethyl) isopropylamine salt</u> | <u>41.0%</u> |
| _____  | _____        |
| _____  | _____        |
| Inert Ingredient(s): . . . . .                             | <u>59.0%</u> |
| Total  | 100.0%       |

BACKGROUND: Monsanto Co. has submitted Twelve studies in support of Their product Glyphosate/MON 35085 Herbicide under EPA symbol 524-UCL. This is claimed to be an improved, less eye irritating, version of Their product Roundup Herbicide registered under EPA symbol 524-308. The difference between them is claimed to be the percentage of surfactant, MON 35085 is stated to have half the amount of surfactant that Roundup is supposed to have. A comparison of the ingredients as obtained from the respective CSFs is as follows:

|   | MON 35085          | Roundup            |
|---|--------------------|--------------------|
|   | %                  | %                  |
| Isopropylamine Salt of<br>Glyphosate<br>(active ingredient) | 43.08 (46.6-40.55) | 41.4 (44.50-40.55) |

The surfactant used are different but similar properties but  
The difference in the percentage of surfactant in each product

BACKGROUND: IS not as substantially different in  
as then the other [REDACTED] for MON 31081 to  
[REDACTED] For Round up.

The reduction in the percentage of surfactant is made  
in an effort to reduce the eye irritation potential and  
put the new product in a less Toxic category. Therefore,  
seven eye irritation studies are included in the presentation.  
Two of these are conducted in the same laboratory and other  
five are performed in five different laboratories. The  
reason given for conducting the five additional studies  
in eye irritation is that the irritation recorded at the  
second study was "unexpected finding of opacity at 7 days in  
2/6 animals", in "Notes to The reviewer" preceding the eye  
reports.

### Recommendations

The acute Oral, dermal, Inhalation Toxicity, Primary  
dermal irritation and Dermal sensitization studies are  
accepted as guideline data and support the product.

Of the seven eye irritation studies Two are  
considered guideline data, Three are considered core  
minimum data, and Two are considered supplementary  
data. Six of the studies were conducted using irrigation  
of the eyes at 24 hrs, but the reasons necessitating  
this were not given. The guidelines indicate that "at  
24 hours a washout may be used if considered appropriate"

RECOMMENDATION: (cont)

532930 The initial study performed at Springborn Laboratories using Three animals is considered supplementary data only because sufficient number of animals were not used.

Y0-90-291 - The study conducted at Younger Laboratories did not specify any methodology. It stated that at 24 hrs 5/6 animals had areas of barely perceptible corneal dullness. There is no indication of confirming findings with fluorescein stain. The number of males and females used is not specified, rather it is stated that six animals in "mixed sex" were used. The source of the animals, the age is not given. There is no statement of quality assurance.

40 CFR CH I (7-1-79) § 160.125 subpart H states that each study report must include

#7 - a description of the test system used. The sex, body weight range, source of supply, species, strain & substrain & age of animals & procedure used for identification

#8 - a description of the dosage, dosage regimen & route of administration

#9 - a description of all circumstances that may have affected the quality and integrity of the data

#11 The statement prepared and signed by the quality assurance unit as described in § 160.35 (b)(7)

The study did not comply with all or parts of the preceding requirements.

RECOMMENDATION: let

SB90-003 - The second study performed at Springborn Laboratories is considered minimum data because the study was not continued beyond 7 days as there was opacity in 2/6 animals at that time. If continued beyond 7 days, it would have shown that eye damage was reversible. It is assumed that a grade 1 opacity is reversed by day 21. The study is acceptable support for the product.

BD90-123 The Study performed at Bio/dynamics is considered core minimum data for the following reasons:

1. Positive fluorescein staining signifies opacity and must be recorded as such

2. Ulceration is considered part of opacity according to Doize, and must be included in opacity and not treated as a separate entity.

Absence of staining at 72 hrs does not necessarily mean healing, it does not mean healing at later intervals either, as cornea heals from surface down and lesion can be present without staining. Ulceration is severe ocular lesion and does not normally heal within 48 hrs.

WL90-091 The Study performed at WL Research used a pen light to evaluate the eye irritation. This is not adequate source of light if <sup>any</sup> small lesions are present, particularly if fluorescein confirmation of findings were delayed until 72 hrs. Small lesions

RECOMMENDATION: Cont.

can and will heal within that period of time. Also, The eyes should have been washed with saline rather than Tap water with possible contaminants and irritants.

The presentation of data from six different sources does not necessarily mean that the finding of opacity at 7 days is invalid or negligible. Particularly considering that all tests were not performed in the identical manner:

1- All were evaluated by different people with various background of Training and all were subjective to some extent.

2. No justification is given for washing the eyes at 24 hrs. The eyes normally are irrigated at 24 hrs while examination by fluorescein is made. According to guidelines washing at 24 hrs is acceptable only if it is found to be necessary. The presence of opacity in spite of washing at 24 hrs makes the opacity more significant.

3. The source of light was not uniform. Adequate and proper illumination is necessary for accurate evaluation.

4. Fluorescein was not always used at 24 hrs to confirm findings.



RECOMMENDATION: out

Unexpected finding of opacity in the eyes of two rabbits at 7 days is not unusual nor warrants repeated testing at other facilities. A third test at Springborn would have been more enlightening and significant because so many variables would not have been introduced. No inconsistencies are found between the two studies at Springborn. The first three animals did not show opacity at 7 days during the initial study however  $\frac{1}{3}$  or  $\frac{2}{6}$  showed opacity in the second.

This is not that far removed from the original findings.

The study that showed  $\frac{2}{6}$  opacity at 7 days is a valid study and ~~MUST BE TAKEN INTO ACCOUNT~~ as long as it is not demonstrated why the unexpected results from a test should not be accepted regardless of subsequent studies not showing opacity at 7 days. If the total number of animals tested (33) show 6% ( $\frac{2}{33}$ ) of animals with opacity at 7 days

The probability of eye irritation is present therefore the toxicity of Eye irritation must be considered to be in Category II.

LABELING:

The signal word is "warning"

The Precautionary statement must include:

Causes substantial but Temporary eye injury, harmful if inhaled, Do not get in eyes or breathe spray mist or get on clothing. Wear goggles, face shield or safety glasses. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

The statement of Practical Treatment must include:

If in eyes hold eyelids open and flush with steady gentle stream of water for 15 minutes

If swallowed - Drink promptly a large quantity of milk, egg white, ~~OR~~ gelatin solution. If these are not available drink large quantities of water.

If inhaled remove victim to fresh air, if not breathing give artificial respiration, preferably mouth to mouth, get medical attention.

# DATA REVIEW FOR ACUTE ORAL TOXICITY TESTING (§81-1)

Product Manager: (25) Reviewer: L. Markarian  
 MPID No.: 416423-02 Report Date: 11/14/90  
 Testing Facility: Springborn Laboratories Inc. Report No. SB-90-191  
 Author(s): Rusty E. Rush  
 Species: Rat Sprague Dawley  
 Age: young adult Observation Days (Post Exposure): (14); other (15)  
 Weight: ♂ 265-280g ♀ 207-219 g  
 Source: Charles River Laboratories, Inc. Portage Michigan  
 Test Material: MON-35085 Lot PIR 9003-1765F (amber liquid) Density 1.08g/ml  
 Quality Assurance (40 CFR §160.12): included

## Conclusion:

- LD<sub>50</sub> (mg/kg): Males = \_\_\_\_\_; Females = \_\_\_\_\_; Combined = \_\_\_\_\_
- The estimated LD<sub>50</sub> is Greater Than 5000mg/kg
- Tox. Category: IV. Classification: Care Guideline

Procedure (Deviations From §81-1): Fasted animals were intubated. Observations were frequent during the day of intubation and daily thereafter for 14 days. body weights were recorded on days 1, 8, 15, CO<sub>2</sub> euthanasia was used. Necropsy was performed on all animals  
 Results:

## Reported Mortality

| DOSAGE ( mg /kg) | (NUMBER KILLED/NUMBER TESTED) |         |          |
|------------------|-------------------------------|---------|----------|
|                  | Males                         | Females | Combined |
| 5000             | 0/5                           | 0/5     | 0/10     |
|                  |                               |         |          |
|                  |                               |         |          |
|                  |                               |         |          |
|                  |                               |         |          |

## Symptomology & Gross Necropsy Findings:

There was no mortality. Symptoms of toxicity included piloerection, fecal & urine stains, dark staining around the facial area, diarrhea, respiratory distress, decreased activity, and lowered body temperature. Weight loss was observed in one male and two females. Weight gains were normal in the resting animals. Necropsy revealed reduction in adipose tissue in one male & one female and a distended GI tract of one female with gas.

# DATA REVIEW FOR ACUTE DERMAL TOXICITY TESTING (§81-2)

Product Manager: (25) Reviewer: L. Markarian  
 MRID No.: 416423-03 Report Date:  
 Testing Laboratory: Springborn Laboratories, Inc. Report No. SB-90-192  
 Author(s): Rusty E. Rush  
 Species: Rat, Sprague Dawley, Charles River Laboratories Inc. Portage, Mich.  
 Sex: 5 ♂ & 5 ♀ Wt.: ♂ 256-269g ♀ 234-247g  
 Test Material: MON 35035 Lot: PIT-9003-1765F amber liquid  
 Quality Assurance (40 CFR §160.12): included

## Summary:

- LD<sub>50</sub> (mg/kg): Males = ; Females = ; Combined = ;
- The estimated LD<sub>50</sub> is Greater than 5000 mg/kg
- Tox. Category: IV . Classification: Core Guideline

Procedure (Deviations From §81-2): The test material was applied to the clipped dorsum of the rats covered with 8 ply gauze and wrapped in plastic wrap. A rubber stadiometer sleeve was placed around the trunk & secured with tapes. At 24 hrs all wrappings were removed & the application site rinsed with distilled water. Observations were frequent on the day of administration and daily thereafter. Body weight were recorded on days 1, 2, & 11. ECG catheterization was used. Necropsy was performed on all animals

## Results:

### Reported Mortality

| DOSAGE (mg/kg) | (NUMBER KILLED/NUMBER TESTED) |         |          |
|----------------|-------------------------------|---------|----------|
|                | Males                         | Females | Combined |
| 5000           | 0/5                           | 0/5     | 0/10     |
|                |                               |         |          |
|                |                               |         |          |
|                |                               |         |          |
|                |                               |         |          |

## Symptomology & Gross Necropsy Findings:

There was no mortality. Symptoms of toxicity included dark material on the facial area and dermal irritation at the site of application. one female lost weight between days 1 & 2.  
 Necropsy revealed no gross abnormalities

# DATA REVIEW FOR ACUTE INHALATION TOXICITY TESTING (§81-3)

Product Manager: (25)  
 NPID No.: 416423-06  
 Testing Laboratory: Monsanto Co. Environmental Health Lab.  
 Author(s): B. R. Dudek  
 Species: Rat, Sprague Dawley 2wk old  
 Sex: 20 ♂ + 20 ♀  
 Source: Charles River Laboratories, Portage, Michigan  
 Test Material: MON 35085 Lot: PIT-9003-1765E amber liquid  
 Quality Assurance (40 CFR §160.12):

Reviewer: L. Markarian

Report Date: 11/14/90

Report No. MC-90-121/CHL 90073

## Summary:

1. LC<sub>50</sub> (mg/kg): Males = 2.5 (1.7222 - 3.9911) mg/L; Females = 2.7 (1.9102 - 4.3600); Combined = 2.6 (2.1216 - 3.2716)
2. The estimated LC<sub>50</sub> is
3. Mean Concentration: 1.3, 2.1, 2.9 + 5.3
4. Tox. Category: III. Classification: Gen guideline

Procedure (Deviations From §81-2): The 4 hr exposure was in N.Y. University type stainless steel chamber (300 L). Two different systems were used to generate the test atmosphere. One system The dual flask/discriminator system was used for the exposure at 1.3 mg/L but not for the other exposures, because of insufficient chamber concentrations another method was used (FMI pump/nozzle atomizer system) to achieve the higher concentrations. The former system gave a better particle size performance.

## Results:

### Reported Mortality

| Exposure Concentration<br>(mg/L) | (NUMBER KILLED/NUMBER TESTED) |         |          |
|----------------------------------|-------------------------------|---------|----------|
|                                  | Males                         | Females | Combined |
| 1.3                              | 0/5                           | 0/5     | 0/10     |
| 2.1                              | 0/5                           | 2/5     | 4/10     |
| 2.9                              | 3/5                           | 2/5     | 5/10     |
| 5.3                              | 5/5                           | 5/5     | 10/10    |
|                                  |                               |         |          |

## Symptomology & Gross Necropsy Findings:

The dual flask system placed a Laskin nebulizer in each flask. The aerosol output was passed through a particle size discriminator before entering the chamber. The output through the discriminator and a series of jets & substrates within the discriminator impinged the large particles. The nozzle atomizer system had an FMI fluid metering pump (Model RP-2V fluid metering Inc Oyster Bay, NY) that delivered the test material to the inlet of 1/4" JES air atomizing nozzle (Spraying Systems) at the top of the chamber. Filtered compressed air was delivered to the air nozzle. The test atmosphere was sampled for determination of concentrations using glass impingers at a known rate and analyzed by liquid chromatography 437

Particle size analysis was performed using an Andersen Cascade Impactor using a flow rate of 28-29 L/min. Flow rate, Temperature and humidity were recorded at 30 minute intervals.

Observations were hourly during exposure, with limited view due to the placement of cages in the chamber. The animals were observed immediately following exposure and daily for 14 days.

Body weights were recorded on days 1, 2, 7 & 14. Necropsy was performed on all animals.

| Dose level | MMA D<br>ug/m | Standard<br>Deviation | Particles<br>lost than<br>1 cc/min | Mean<br>air flow<br>L/min | Mean<br>Temp<br>C° | Mean<br>Humidity<br>% |
|------------|---------------|-----------------------|------------------------------------|---------------------------|--------------------|-----------------------|
| 1.3 mg/L   | 2.4           | 1.9                   | 7.7%                               | 138.7                     | 21.7               | 65                    |
| 2.1 mg/L   | 3.9           | 1.9                   | 1.6%                               | 126.3                     | 19.5               | 79.2                  |
| 2.9 mg/L   | 3.4           | 1.8                   | 2.1%                               | 111.6                     | 20.1               | 80.3                  |
| 5.3 mg/L   | 3.6           | 1.9                   | 2.2%                               | 102.9                     | 19.7               | 94.1                  |

During exposure the animals in the 1.3 mg/L group showed no symptoms of toxicity. At 2.1 mg/L Test material was reported on fur and animals showed labored respiration. At 2.9 mg/L animals were covered with Test material and were hypopositive. At 5.3 mg/L Animals were covered with Test material were hypopositive and showed labored respiration.

There were no deaths at 1.3 mg/L. Few of the animals showed labored respiration, respiratory rattle, made high pitched sounds and had perineal & perianal brown encrustation.

At 2.1 mg deaths occurred within 6 days. Signs of toxicity included emaciation, hypopositivity, arching backs, respiratory distress nasal discharge brown encrustation of the perineal & perianal areas and partial closure of eyes. Some showed hair loss & scales.

at 2.9 mg/L same symptoms were observed as the previous groups but at a higher intensity and frequency with the addition of ocular opacity that lasted to 10 days. Hair loss was observed to persist to the end of the study.

At 5.3 mg/L all animals died, prior to death. The same symptoms observed at 2.1 mg/L + 2.9 mg/L were observed. Deaths occurred within 5 days.

The most prominent observation was the corneal opacity and alopecia the survivors. All animals that survived showed satisfactory gains in body weight.

At necropsy of animals that died abnormalities of eyes, liver, lungs nasal turbinates were observed. Some changes were attributed to post mortem autolysis and not necessarily due to the toxicity of the test material.

The survivors showed alopecia at termination. There were no other gross findings.

# DATA REVIEW FOR ACUTE EYE IRRITATION TESTING (§81-4)

Product Manager: ( 25 ) Reviewer: L. Markarian  
 MRID No.: 416423-04 Report Date: 11/14/90  
 Testing Laboratory: Springborn Laboratories, Inc. Report No. SB39-300  
 Author(s): Rusty E. Rush  
 Species: Rabbit, New Zealand White  
 Sex: Female Weight: Not specified  
 Source: Mohican Valley Rabbitry, Loudonville, Ohio  
 Dosage: 0.1 ml  
 Test Material: MON 35085  
 Quality Assurance (40 CFR §160.12): included

## Summary:

Tox. Category: Classification: Supplementary

Procedure (Deviation From §81-4): The test material was instilled in the conjunctival sac of the right eye as received. Both eyes of the animals were irrigated <sup>3 times</sup> 24 hr. after the 24 hr. observation. The eyes were scored according to Draize at 1, 2, 4, 8, & 12 hrs and on days 7. Animals were sacrificed at termination using T-61 euthanasia. Only those animals were used to evaluate the eye irritating potential of the test material.

## Results:

|                      | Observations<br>(number "positive"/number tested) |      |     |     |   |     |    |    |
|----------------------|---|------|-----|-----|---|-----|----|----|
|                      | Hour  | Days |     |     |   |     |    |    |
|                      | 1   | 1    | 2   | 3   | 4 | 7   | 14 | 21 |
| Cornea Opacity       | 0/3   | 1/3  | 1/3 | 1/3 | - | 0/3 |    |    |
| Iris                 | 3/3   | 2/3  | 0/3 | 0/3 | - | 0/3 |    |    |
| Conjunctivae Redness | 3/3   | 3/3  | 3/3 | 3/3 | - | 0/3 |    |    |
| Chemosis             | 3/3   | 3/3  | 3/3 | 3/3 | - | 0/3 |    |    |
| Discharge            | 3/3   | 3/3  | 2/3 | 0/3 | - | 0/3 |    |    |
|                      |   |      |     |     |   |     |    |    |
|                      |   |      |     |     |   |     |    |    |
|                      |   |      |     |     |   |     |    |    |

Comments: The guidelines require six animals per test



# DATA REVIEW FOR ACUTE EYE IRRITATION TESTING (§81-4)

Product Manager: (25) Reviewer: L. Markarian  
 MRID No.: 416423-04 Report Date: 11/14/90  
 Testing Laboratory: Faul & Drug Research Laboratories Report No. FD-90-120  
 Author(s): Elizabeth L. Reagan FDRL # 90-0044  
 Species: Rabbit, New Zealand white  
 Sex: Male Weight: 2.51-2.87 kg  
 Source: Hazleton Research Products Inc. Denver, Pa  
 Dosage: 0.1 ml  
 Test Material: MON 35085 Batch/Lot: PIT 8906-603F  
 Quality Assurance (40 CFR §160.12): included

## Summary:

Tox. Category: III Classification: Low grade irritant

Procedure (Deviation From §81-4): 0.1 ml of test article (as received) was  
instilled in the right conjunctival sac of six rabbits. Observations were at  
1, 2, 4, 8, 72 hrs and Days 7 & 10 according to Draize. All eyes were washed in saline  
after the 24 hr reading. Examination for irritation was made with pen light  
followed by treatment with sodium thiosulfate and examination with slit light  
equipped with blue filter. At termination animal were euthanized with  
sodium pentobarbital.

## Results:

|                                  | Observations                      |      |     |     |   |     |     |    |
|----------------------------------|-----------------------------------|------|-----|-----|---|-----|-----|----|
|                                  | (number "positive"/number tested) |      |     |     |   |     |     |    |
|                                  | Hour                              | Days |     |     |   |     |     |    |
|                                  | 1                                 | 1    | 2   | 3   | 4 | 7   | 10  | 21 |
| Cornea Opacity                   | 0/6                               | 0/6  | 0/6 | 0/6 | — | 0/6 | 0/6 |    |
| Iris                             | 0/6                               | 3/6  | 0/6 | 0/6 | — | 0/6 | 0/6 |    |
| Conjunctivae Redness             | 6/6                               | 6/6  | 6/6 | 5/6 | — | 2/6 | 0/6 |    |
| Chemosis                         | 6/6                               | 6/6  | 6/6 | 6/6 | — | 0/6 | 0/6 |    |
| Discharge                        | 6/6                               | 4/6  | 0/6 | 0/6 | — | 0/6 | 0/6 |    |
| blistering of mucous membrane    | 6/6                               | 6/6  | 0/6 | 0/6 | — | 0/6 | 0/6 |    |
| blistering of nictating membrane | 6/6                               | 6/6  | 1/6 | 0/6 | — | 0/6 | 0/6 |    |
|                                  |                                   |      |     |     |   |     |     |    |

Comments: 2 redness observed at 7 days was Grade 1 (now remarkable)  
is not considered positive reaction

441

# DATA REVIEW FOR ACUTE EYE IRRITATION TESTING (§81-4)

Product Manager: (25) Reviewer: L. Markarian  
 MRID No.: 416423-04 Report Date: 11/14/90  
 Testing Laboratory: Springborn Laboratories Inc. Report No. SB-90-003  
 Author(s): Rusty E. Rush S.S.# 3094.46  
 Species: Rabbit, New Zealand White  
 Sex: Female Weight: 2.0-2.3 kg  
 Source: Mohican Valley Rabbitry, Loudonville, Ohio  
 Dosage: 0.1 ml  
 Test Material: MON 35085 Lot: 3906-603F  
 Quality Assurance (40 CFR §160.12): included

## Summary:

Tox. Category: II Classification: Core minimum

Procedure (Deviation From §81-4): Undiluted test material was instilled in the conjunctival sac of the right eye. The eyes were examined at 1, 2, 4, 7, 14, and 21 days and on day 7 according to Draize. At 24 hr after examination fluorescein was used to verify the findings & wash the eyes. Fluorescein was used to verify lesions if 24 hr examination was positive for opacity. At Termination Animals were euthanized with T-61.

## Results:

|                                 | Observations<br>(number "positive"/number tested) |      |     |     |   |     |    |    |
|---------------------------------|---|------|-----|-----|---|-----|----|----|
|                                 | Hour  | Days |     |     |   |     |    |    |
|                                 | 1   | 1    | 2   | 3   | 4 | 7   | 14 | 21 |
| Cornea Opacity                  | 0/6   | 0/6  | 0/6 | 0/6 | - | 2/6 |    |    |
| Iris                            | 6/6   | 3/6  | 0/6 | 1/6 | - | 0/6 |    |    |
| Conjunctivae Redness            | 6/6   | 6/6  | 6/6 | 6/6 | - | 6/6 |    |    |
| Chemosis                        | 6/6   | 6/6  | 4/6 | 6/6 | - | 4/6 |    |    |
| Discharge                       | 6/6   | 4/6  | 2/6 | 0/6 | - | 0/6 |    |    |
| Sloughing of corneal epithelium | 6/6   | 6/6  | 6/6 | 5/6 | - | 0/6 |    |    |
| Vascularization of Cornea       | 0/6   | 0/6  | 0/6 | 0/6 | - | 0/6 |    |    |
| Stripping of Cornea             | 0/6   | 0/6  | 1/6 | 3/6 | - | 0/6 |    |    |

Comments: Sloughing of cornea occurs when there is corneal lesion. It is not indicated at the 1 hr evaluation, but sloughing is.

Since there was opacity at 7 days, the observations should have been extended to 28 days as no irritation was observed.

# DATA REVIEW FOR ACUTE EYE IRRITATION TESTING (§81-4)

Product Manager: (25)  
 MRID No.: 416423-04  
 Testing Laboratory: Toxikon Corporation  
 Author(s): Herman S. Lilja  
 Species: Rabbit, New Zealand white  
 Sex: Male  
 Source: Pine Acres, Norton, Ma  
 Dosage: 0.1  
 Test Material: MON 35085 Lot: PIT-8906-603F  
 Quality Assurance (40 CFR §160.12): included

Reviewer: L. Markarian  
 Report Date: 11/14/90  
 Report No. TO-90-106  
 Toxikon # 906 0120

## Summary:

Tox. Category: III Classification: Guideline

Procedure (Deviation From §81-4): The test material was instilled as received in the conjunctival sacs of the left eye of rabbits. Eyes were examined at 1, 2, 4, 48, 72 hrs and on days 4, 5, 6 according to Draize. At 24 hrs the Treat of instilled eyes was washed with 0.9% saline. Fluorescein stain was used at each examination after the 1 hr observation.

## Results:

|                      | Observations                      |      |     |     |     |     |     |  |
|----------------------|-----------------------------------|------|-----|-----|-----|-----|-----|--|
|                      | (number "positive"/number tested) |      |     |     |     |     |     |  |
|                      | Hour                              | Days |     |     |     |     |     |  |
|                      | 1                                 | 1    | 2   | 3   | 4   | 5   | 6   |  |
| Cornea Opacity       | 0/6                               | 0/6  | 0/6 | 0/6 | 0/6 | 0/6 | 0/6 |  |
| Iris                 | 0/6                               | 0/6  | 0/6 | 0/6 | 0/6 | 0/6 | 0/6 |  |
| Conjunctivae Redness | 0/6                               | 1/6  | 0/6 | 0/6 | 0/6 | 0/6 | 0/6 |  |
| Chemosis             | 4/6                               | 1/6  | 0/6 | 0/6 | 0/6 | 0/6 | 0/6 |  |
| Discharge            | 0/6                               | 0/6  | 0/6 | 0/6 | 0/6 | 0/6 | 0/6 |  |
|                      |                                   |      |     |     |     |     |     |  |
|                      |                                   |      |     |     |     |     |     |  |
|                      |                                   |      |     |     |     |     |     |  |

Comments:

# DATA REVIEW FOR ACUTE EYE IRRITATION TESTING (§81-4)

Product Manager: (25 ) Reviewer: L. Markarian  
 MRID No.: 416423-04 Report Date: 11/14/90  
 Testing Laboratory: Bio/dynamics, Inc. Report No. BD-90-123  
 Author(s): Donna L. Blaszcak  
 Species: Rabbit, New Zealand white  
 Sex: 4 Males 2 Females Weight: not specified  
 Source: Hazleton Research Animals, Inc. Denver, Pa.  
 Dosage: 0.1 ml  
 Test Material: MON 35085, Lot: PIT 8906-603F  
 Quality Assurance (40 CFR §160.12): included

## Summary:

Tox. Category: III Classification: low minimum

Procedure (Deviation From §81-4): Undiluted test material was instilled in the conjunctival sac of the eyes. Eyes were examined at 1 hr + on days 1, 2, 3, 7, 14 & 21 following instillation. Eyes were anesthetized during instillation after the first animal appeared to be in pain. After the 24 hr observation all eyes were rinsed to remove residual material. Fluorescein was used starting with 24 hr observation.

## Results:

|                      | Observations<br>(number "positive"/number tested) |      |     |     |   |     |     |     |
|----------------------|---|------|-----|-----|---|-----|-----|-----|
|                      | Hour  | Days |     |     |   |     |     |     |
|                      | 1   | 1    | 2   | 3   | 4 | 7   | 14  | 21  |
| Cornea Opacity       | 0/6   | 2/6  | 2/6 | 1/6 | - | 0/6 | 0/2 | 0/1 |
| Iris                 | 0/6   | 0/6  | 0/6 | 0/6 | - | 0/6 | 0/2 | 0/1 |
| Conjunctivae Redness | 4/6   | 4/6  | 4/6 | 4/6 | - | 0/6 | 0/2 | 0/1 |
| Chemosis             | 4/6   | 2/6  | 0/6 | 0/6 | - | 0/6 | 0/2 | 0/1 |
| Discharge            | 6/6   | 0/6  | 0/6 | 0/6 | - | 0/6 | 0/2 | 0/1 |
| Ulceration of Cornea | 0/6   | 1/6  | 1/6 | 0/6 |   | 0/6 | 0/2 | 0/1 |
|                      |   |      |     |     |   |     |     |     |
|                      |   |      |     |     |   |     |     |     |

\* reflect ulceration  
 \*\* Gross & Irregular  
 persist at Day 14  
 in 1 animal - it is  
 considered unmeasurable  
 by the Draize system.  
 It was the reason  
 continuation for  
 observation

Comments: Whenever There is positive staining it is a sign of corneal opacity and it must be indicated as such and scored a minimum of 1 opacity. In this specific case the opacity appeared after washing at 24 hr<sup>11:00</sup> which is significant in itself.

Ulceration of cornea is corneal lesion and must be indicated in opacity. It is not clear if ulceration did not stain at 72 hrs. It was considered as such.

# DATA REVIEW FOR ACUTE EYE IRRITATION TESTING (§81-4)

Product Manager: (25 ) Reviewer: L. Markarian  
 MRID No.: 216423-04 Report Date: 11/19/90  
 Testing Laboratory: WIL Research Laboratories Inc. Report No. WI-90-091  
 Author(s): Dennis J. Naas WIL# WIL 50120  
 Species: Rabbit, New Zealand White  
 Sex: 2 ♂ 4 ♀ Weight: 2443-3730 grams  
 Source: Clerco Research Farm, Cincinnati, Ohio  
 Dosage: 0.1 ml.  
 Test Material: MON 35085 Lot: PIT 8906-603F  
 Quality Assurance (40 CFR §160.12): included

## Summary:

Tox. Category: III Classification: Corneal minimum

Procedure (Deviation From §81-4): (Undiluted test material was instilled in the right conjunctival sacs. Observations were at 1, 2, 4, 48, 72 hrs and on days 4, 7, & 10. After the 24 hr observation the test & control eyes were washed with tap water. Fluorescein was used after the 72 hr observation. All scoring was according to Draize. At termination the rabbits were sacrificed with an overdose of intravenous anesthesia. Light source was penlight. Ultraviolet was used for examining fluorescein stains on eyes.

## Results:

|                      | Observations<br>(number "positive"/number tested) |      |     |     |     |     |     |
|----------------------|---|------|-----|-----|-----|-----|-----|
|                      | Hour  | Days |     |     |     |     |     |
|                      | 1   | 1    | 2   | 3   | 4   | 7   | 10  |
| Cornea Opacity       | 0/6   | 0/6  | 0/6 | 0/6 | 0/6 | 0/6 | 0/6 |
| Iris                 | 0/6   | 0/6  | 0/6 | 0/6 | 0/6 | 0/6 | 0/6 |
| Conjunctivae Redness | 6/6   | 6/6  | 6/6 | 6/6 | 6/6 | 6/6 | 6/6 |
| Chemosis             | 6/6   | 4/6  | 3/6 | 2/6 | 0/6 | 0/6 | 0/6 |
| Discharge            | 4/6   | 5/6  | 4/6 | 1/6 | 0/6 | 0/6 | 0/6 |
|                      |   |      |     |     |     |     |     |
|                      |   |      |     |     |     |     |     |
|                      |   |      |     |     |     |     |     |

\* 2/6 showed Grade 1 redness  
 conjunctivae unremarkable

Comments: Penlight is not adequate source of light for examining borderline lesions. In view of the fact that fluorescein was not used at 24 hrs the presence or the absence of corneal lesion was not confirmed. Later examination with fluorescein gave any unobserved lesions time to heal and may have been missed. Eyes should have been washed with saline.

DATA REVIEW FOR ACUTE EYE IRRITATION TESTING (§81-4)

Product Manager: (25) Reviewer: L. Markarian  
 MRID No.: 416423-04 Report Date: 11/14/90  
 Testing Laboratory: Younger Laboratories Inc. Report No. Y0-90-291  
 Author(s): Michael J. Evans  
 Species: Rabbit, New Zealand white  
 Sex: "Mixed sex" Weight: unspecified  
 Source: unspecified  
 Dosage: 0.1 ml  
 Test Material: MON 35025 Lot PIT 8906-603F  
 Quality Assurance (40 CFR §160.12): none included

Summary:

Tox. Category: Classification: Supplementary

Procedure (Deviation From §81-4): Procedures not specified. There is one indication that Protocol "C 1.50/Change" however the nature of the change per the protocol is given. In the observation & comment it is stated that the rabbits experienced discomfort after instillation of the product by thrashing, pawing & closing eyes tightly. Also indicated is the moderate redness & copious discharge at 10 minutes & 1 hr. At 24 hrs 5/6 animals had areas of poorly perceptible corneal redness. There is no indication of fluorescein being used to confirm any of the findings. The light source also not indicated. Evaluation was at 1, 24, 48 Results: & 72 hrs & on Day 7

|                      | Observations                      |      |     |     |   |     |    |    |
|----------------------|-----------------------------------|------|-----|-----|---|-----|----|----|
|                      | (number "positive"/number tested) |      |     |     |   |     |    |    |
|                      | Hour                              | Days |     |     |   |     |    |    |
|                      | 1                                 | 1    | 2   | 3   | 4 | 7   | 14 | 21 |
| Cornea Opacity       | 0/6                               | 1/6  | 0/6 | 0/6 | — | 0/6 |    |    |
| Iris                 | 0/6                               | 0/6  | 0/6 | 0/6 | — | 0/6 |    |    |
| Conjunctivae Redness | 0/6                               | 0/6  | 5/6 | 0/6 | — | 0/6 |    |    |
| Chemosis             | 0/6                               | 0/6  | 0/6 | 0/6 | — | 0/6 |    |    |
| Discharge            | 0/6                               | 0/6  | 0/6 | 0/6 | — | 0/6 |    |    |
|                      |                                   |      |     |     |   |     |    |    |
|                      |                                   |      |     |     |   |     |    |    |
|                      |                                   |      |     |     |   |     |    |    |

Comments: Fluorescein must be used to confirm any corneal findings at 24 hrs. Protocol & procedures must be included in the report as well as the source, how many in each sex & weight of the animals must be stated. The regulations require that each study include a quality assurance statement.

DATA REVIEW FOR SKIN IRRITATION TESTING (§81-5)

Product Manager: (25) Reviewer: L. Markarian  
 MRID No.: 416423-05 Report Date: 11/14/90  
 Testing Laboratory: Springborn Laboratories Inc Report No. SB-90-193  
 Author(s): Rusty E. Rush Springborn # 3044.74  
 Species: Rabbit, New Zealand white, Mohican Valley Rabbitry, Loudonville, OH  
 Age: Young adult  
 Sex: 3♂ & 3♀  
 Weight: 2.1 - 2.8 Kg  
 Dosage: 0.5 ml  
 Test Material: MON-35085 Lot: PIT-9003-1765F  
 Quality Assurance (40 CFR §160.12): included

Summary:

The Primary Irritation Index = 0.38

Toxicity Category: IV

Classification: Core Guideline

Procedure (Deviations From §81-5): 0.5 ml of undiluted test material was applied to two 1x1 inch sites on the shaved dorsum of rabbits. The sites were covered with gauze & adhesive patch and a stockinette sleeve was positioned around the trunk secured by tape. At 4 hrs the wrapping were removed & sites rinsed with distilled water. Test sites were examined at 1, 2, 4, 48 & 72 hrs according to a scale similar to Draize. At termination the animals were euthanized by T-61

Results:

At 1 hr. 6/12 showed Grade 1 erythema and 6/12 showed Grade 2 erythema with no edema. At 24 hrs no irritation was observed nor was it observed at subsequent intervals.

Special Comments:

# DATA REVIEW FOR SKIN SENSITIZATION TESTING (§81-6)

Product Manager: (25 ) Reviewer: L. Markarian  
 MRID No.: 416423-07 Report Date: 11/19/90  
 Testing Laboratory: BioDynamics, Inc. Report No. BD-90-203  
 Author(s): Donna L. Blaszcak  
 Species: Guinea Pig, Hartley  
 Sex: 13 ♂ 13 ♀ 5-week old Weight: 353-386g  
 Source: Hazleton Research Animals, Inc., Denver, Pa  
 Test Material: MON 35025 Lot PIT-9003-1765F  
 Positive Control Material: Reference given to react DNCB studies  
 Quality Assurance (40 CFR §160.12): included

Method: Bechler

## Summary:

1. This product ~~is~~ is not a dermal sensitizer.
2. Classification: Cos guideline

Procedure (Deviation From §81-6): PreTest screening was made using 6 Guinea pigs (3 ♂ + 3 ♀) using 100% + 50% , 25% + 10% 1/4 dilution in distilled water in Hill Top chambers in 0.3ml aliquots. The chambers were secured with impermeable plastic occlusion + elastic adhesive bandage wrapped around the Throat of the animals. Exposure was for 6 hrs, at that time the wrappings were removed + the sites were evaluated at 24 + 48 hrs. No irritation was observed at any site at any interval therefore Induction + elicitation were made at 100%. Applied similar to the prescreening applications. Two groups of animals were used. 10 for Test (5 ♂ + 5 ♀) and 10 for naive controls. Reference is given to successful induction + elicitation of sensitization with DNCB. The Test group received 3 induction applications one week apart. Challenge was made at a naive site 14 days after the last induction in both Test and naive controls applied at 100% in 0.3ml aliquots in Hill Top chambers and secured with plastic + adhesive tape wrappings. After 6 hrs the wrappings were removed + sites evaluated. Induction + challenge sites were evaluated at 24 + 48 hrs after application. No irritation was observed after the induction application and challenges at either 24 or 48 hrs in any animal.

4/48



Tox Chem No: 661 A

Glyphosate

File Last Updated

Current Date 11/19/90

| Study/Lab/Study #/Date   | Material                          | EPA<br>Accession<br>No. | Results:<br>LD <sub>50</sub> , LC <sub>50</sub> , PIS, NOEL, LEL  | TOX. CONC Grade/<br>Cnt. Doc. No. |
|--|-----------------------------------|-------------------------|---|-----------------------------------|
| Acute Oral Toxicity<br>Limit Test<br>Springborn Laboratories, Inc.<br>Life Science Division<br>553 North Broadway<br>Spencerville, OH 43087<br>SB-90-191 9/6/90                                | MON-35085<br>Lot: PIT 9003-1765 F | 416423-02               | LD <sub>50</sub> Greater Than 5000 mg/kg  | IV Guideline                      |
| Acute Dermal Toxicity<br>Limit Test (Rats)<br>Springborn Laboratories, Inc.<br>SB-90-192 9/6/90  | "                                 | 416423-03               | LD <sub>50</sub> Greater Than 5000 mg/kg  | IV Guideline                      |
| Acute Inhalation Toxicity<br>LD <sub>50</sub> Study<br>Monsanto Company<br>Environmental Health Laboratory<br>645 S. Newstead Ave.<br>St. Louis, Missouri 63110<br>ML-90-181/EHL 90073 8/24/90 | "                                 | 416423-06               | LC <sub>50</sub> 2.5 (1.7282 - 3.9911) mg/kg<br>LC <sub>50</sub> 2.7 (1.9102 - 4.3600) mg/kg<br>Combined 2.6 (2.016 - 3.2716) mg/kg | III Guideline                     |
| Primary Eye Irritation<br>Springborn Laboratories Inc.<br>553 North Broadway<br>Spencerville, Ohio<br>SB-89-300 8/22/89  | MON 35085                         | 416423-08               |   | Supplementary                     |
| Primary Eye Irritation<br>Springborn Laboratories Inc.<br>553 North Broadway<br>Spencerville, Ohio 3/27/90   | MON 35085<br>Lot: PIT 8906-603 F  | 416423-04               | Opacity present at 7 days in<br>1 animal  | II Case minimum                   |

| Study/Lab/Study #/Date   | Material                        | EPA<br>Acceptance<br>No. | Results:<br>LD50, LC50, FIS, NOEL, LEL | TOX.<br>Cat. | TOX. Grade/<br>Doc. No. |
|--|---------------------------------|--------------------------|--|--------------|-------------------------|
| Primary Eye Irritation<br>Food & Drug Research Laboratories<br>P.O. Box 107, Route 17E<br>Lawrence, MA 01840-0107<br>FD 90-126 5/15/90 | MON 35 085<br>Lot: PT 3906-603F | 416423-04                | All irritation cleared by<br>Day 7     | III          | Guideline               |
| Primary Eye Irritation<br>Toxicology Corporation<br>225 Wildwood Ave<br>Woburn, MA 01801<br>TG-90-106 5/23/90                          | "                               | 416423-04                | All irritation cleared by<br>72 hrs    | III          | Guideline               |
| Primary Eye Irritation<br>Bio/Dynamics, Inc<br>P.O. Box 2360<br>Metten Road<br>East Milstone, NJ 08816-2360<br>BD 90-123 7/24/90       | "                               | 416423-04                | All irritation cleared by<br>Day 7     | III          | same minimum            |
| Primary Eye Irritation<br>Will Research Laboratories Inc<br>Ashland, OH 44805-9281<br>WI-90-091 8/31/90                                | "                               | 416423-04                | All irritation cleared by<br>Day 7     | III          | same minimum            |
| Primary Eye Irritation<br>Younger Laboratories Inc<br>123 Cliff Cave Road<br>Saint Louis, MO 63129<br>Y0-90-291 6/15/90                | "                               | 416423-04                |  |              | Supplementary           |

Tox Chem No.

~~644A~~

File Last Updated

Current Date

11/14/90

Glyphosate

Study/Lab/Study #/Date

Material

EPA  
Accession  
No.Results:  
LD<sub>50</sub>, LC<sub>50</sub>, PIS, NOEL, LELTOX. CONC. Grade/  
Cmt. Doc. No.

Primary Dermal Irritation  
Springborn Laboratories, Inc.  
Life Sciences Division  
553 North Broadway  
Spencerville, OH 45887  
SB-90-193 8/15/90

MON 35085  
Lot PIT-9003-1765F

416423-05

Practically non irritating  
P<sub>11</sub> = 0.38

IV

Guideline

Dermal Sensitization  
Bio/dynamics, Inc.  
Menlo Road  
East Millstone, NJ 08815  
2360

BD-90-203 8/17/90

MON 35085  
Lot: PIT-9003-1765F

416423-07

Not a sensitizer

guideline

Attn: Robert J. Taylor (PM 25)

Dear Sir:

Enclosed please find a new Confidential Statement of Formula (CSF) for MON 35085. This new CSF replaces the form we submitted on \_\_\_\_\_.

In accordance with a phone call on November 20 from Mike Clifford (EPA) to Robert Street (Monsanto), we have reexpressed the composition of MON 35085 in terms of the ingredients added to the formulation in their respective amounts.

Please contact Kevin Cannon at our Washington office if there are any questions.

Sincerely,

*Bob Taylor,*

*Re: MON-35085*

*12-3-76*

RPS

*Mike Clifford requested this  
revised CSF for MON-35085 -*

*Please replace the old CSF  
with the enclosed new CSF.*

*Kevin*

RIN 910-02  
EPA Registration File Jacket # 524-445

Page     is not included in this copy.

Pages 453 through 455 are not included in this copy.

---

The material not included contains the following type of information:

- Identity of product inert ingredients.
- Identity of product inert impurities.
- Description of the product manufacturing process.
- Description of quality control procedures.
- Identity of the source of product ingredients.
- Sales or other commercial/financial information.
- A draft product label.
- ☒ The product confidential statement of formula.
- Information about a pending registration action.
- FIFRA registration data.
- The document is a duplicate of page(s)       .
- The document is not responsive to the request.

---

The information not included is generally considered confidential by product registrants. If you have any questions, please contact the individual who prepared the response to your request.

---

# Monsanto

Monsanto Company  
Suite 1100  
700 14th Street, N.W.  
Washington, D.C. 20005

September 19, 1990

Document Processing Desk (APPL)  
Office of Pesticide Programs - H7504C  
U.S. Environmental Protection Agency  
1921 Jefferson Davis Highway  
Crystal Mall #2, Room 226A  
Arlington, Virginia 22202

ATTENTION: Robert J. Taylor  
Product Manager (25)

SUBJECT: Request for Registration of a New Product Containing  
Glyphosate: MON-35085 herbicide.

Dear Sir:

Roundup® herbicide (EPA Reg. No. 524-308), a formulation containing the isopropylamine salt of glyphosate, is registered for use in both agricultural and non-agricultural sites using a variety of application techniques.

For the past several years Monsanto has been working on the development of a new liquid formulation of glyphosate which would reduce the eye irritancy normally found with Roundup. MON-35085 herbicide is that product.

MON-35085 contains the isopropylamine salt of glyphosate in the same concentration as Roundup (41.0%), but with half the surfactant load [REDACTED]. The reduction in surfactant concentration appears to reduce the eye irritation observed in the current Roundup formulation and in our opinion requires a "CAUTION" signal word.


Since the only change in the formulation is the surfactant concentration, all other data necessary to support the registration of glyphosate and the agricultural and non-agricultural uses remain unchanged.

The enclosed eight-volume submission, designated R.D. 1001.

contains product chemistry, acute toxicity, label use instructions and the administrative materials required for the registration of MON-35085. We ask the EPA to approve this submission as quickly as possible.

If you have any questions regarding this request, please contact Dr. Kevin Cannon or me.

Sincerely,



Russell P. Schneider, Ph.D.  
U.S. and International  
Registration Director

cc: K. Cannon  
I. O'Connor  
N. Yates-Parker

U.S. ENVIRONMENTAL PROTECTION AGENCY  
Office of Pesticide Programs

MONSANTO COMPANY  
700 14TH ST., NW, SUITE 1100  
WASHINGTON, DC 20005

OCT 9 1990

Report of Analysis for Compliance with PR Notice 86-5

Thank you for your transmittal of 09/26/90. Our staff has completed a preliminary analysis of the material. The results are provided as follows:

The data accompanying your application have passed our initial screen for compliance with the standards for data submission contained in PR Notice 86-5. A copy of your transmittal bibliography is enclosed, annotated with the Master Record ID's (MRIDs) we assigned to each document. Please use these numbers in all future references to these documents. Thanks for your cooperation.



TRANSMITTAL DOCUMENT

SUBMITTED BY

Monsanto Agricultural Company  
800 N. Lindbergh Blvd.  
St. Louis, Missouri 63167

REGULATORY ACTION IN SUPPORT OF WHICH THIS PACKAGE IS SUBMITTED

Registration of MON-35085 herbicide

TRANSMITTAL DATE

September 19, 1990

SUBMITTED STUDY

R.D. NO. 1001

LIST OF SUBMITTED DOCUMENTS

Volume 1:

Admin

Administrative Material Required for the  
Registration of MON-35085 herbicide.

Volume 2:

41642301

Schuetz, S.A., "Product Chemistry Data for  
MON-35085 herbicide" (1990), MSL-10294, an  
unpublished report by Monsanto Agricultural  
Company. (Guideline Series 61, 62, 63).

Volume 3:

41642302

Rush, Rusty E., "Acute Oral Toxicity Study in  
Rats with MON-35085" (1990) SLS Study No.  
3044.72, an unpublished study by Springborn  
Laboratories, Inc., conducted for Monsanto  
Company. (Guideline 81-1).

Volume 4:

41642303

Rush, Rusty E., "Acute Dermal Toxicity Study  
in Rats with MON-35085" (1990) SLS Study No.  
3044.73, an unpublished study by Springborn  
Laboratories, Inc., conducted for Monsanto  
Company. (Guideline 81-2).

459

Volume 5:

41642374

(Part A). Rush, Rusty E., "Eye Irritation Screening Study in Rabbits" (1989) SB-89-300, an unpublished study by Springborn Laboratories, Inc., conducted for Monsanto Company. (Part B). Reagan, Elizabeth L., "Primary Eye Irritation Study of MON-35085 in New Zealand White Rabbits" (1990) FD-90-120, an unpublished study by Food & Drug Research Laboratories, conducted for Monsanto Company. (Part C). Rush, Rusty E., "Primary Eye Irritation Study in Rabbits with MON-35085" (1990) SB-90-003, an unpublished study by Springborn Laboratories, Inc., conducted for Monsanto Company. (Part D). Lilja, Herman S., "Primary Eye Irritation Study in Rabbits Test Substance: MON-35085" (1990) TO-90-106, an unpublished study by Toxikon Corporation, conducted for Monsanto Company. (Part E). Blaszcak, Donna L., "Eye Irritation Study in Rabbits Test Material: MON-35085" (1990) BD-90-123, an unpublished study by Bio/dynamics Inc., conducted for Monsanto Company. (Part F). Naas, Dennis J., "Primary Eye Irritation Study in Albino Rabbits with MON-35085" (1990) WI-90-091, an unpublished study by WIL Research Laboratories, Inc., conducted for Monsanto Company. (Part G). Evans, Michael J., "Primary Eye Irritation (Albino Rabbits)" (1990) YO-90-291, an unpublished study by Younger Laboratories, Incorporated, conducted for Monsanto Company. (Guideline 81-4)

Volume 6:

41642345

Rush, Rusty E., "Primary Skin Irritation Study in Rabbits with MON-35085" (1990) SB-90-193, an unpublished study by Springborn Laboratories, Inc., conducted for Monsanto Company. (Guideline 81-5).

Volume 7:

41642306

Dudek, B.R., "Acute Inhalation Study of MON-35085" (1990) ML-90-181/EHL 90073, an unpublished study by Monsanto Company. (Guideline 81-3).

Volume 8: Blaszcak, Donna L., "A Closed-Patch Repeated  
41642307 Insult Dermal Sensitization Study in Guinea  
Pigs (Buehler Method) Test Material: MON-  
35085" (1990) BD-90-203, an unpublished  
report by Bio/dynamics, Inc., conducted for  
Monsanto Company. (Guideline 81-6)

COMPANY OFFICIAL: Russell P. Schneider, Ph.D. Russ Schneider  
U.S. and International Registration Director

COMPANY NAME: MONSANTO AGRICULTURAL COMPANY

COMPANY CONTACT: Dr. Kevin F. Cannon (202) 452-8880



United States Environmental Protection Agency  
Office of Pesticide Programs (TS-767)  
Washington, DC 20460

Application for Pesticide: ☒ Registration  
☐ Amendment

OPP Identifier Number

143671

## Section I

1. Company/Product Number  
Monsanto / 524-XXX-UUL

2. Date  
September 19, 1990

3. Product Manager  
Robert J. Taylor (25)

4. Proposed Classification  
☒ General ☐ Restricted

5. Name and Address of Applicant (Include ZIP Code)

Monsanto Company  
700 14th Street, N.W., #1100  
Washington, D.C. 20005

☐ Check if this is a new address

6. Product Name

Glyphosate/MON-35085 Herbicide

## Section II - Amendment Information

1. Subject  
☐ Resubmission in response to Agency letter ☐ Final printed label in response to Agency letter ☒ Other (explain below)

Date of Letter

Application for registration of glyphosate formulation MON-35085 herbicide

## Section III

1. Material This Product Will Be Packaged In  
Child-Resistant Packaging ☐ Yes ☒ No

Unit Packaging ☒ Yes ☐ No  
If "Yes,"  
Unit package wgt No. per container  
2.5 gallon, 30 gallon

Water-Soluble Packaging ☐ Yes ☒ No  
If "Yes,"  
Package weight No. per container

2. Type of Container  
☐ Metal  
☐ Plastic  
☐ Glass  
☐ Paper  
☐ Other (Specify)

3. Location of Net Contents Information ☐ Label ☒ Container

4. Size(s) of Retail Container  
2.5 gallon, 30 gallon

5. Location of Label Directions  
☒ On Label  
☒ On material accompanying product

6. Manner in Which Label Is Affixed To Product  
☐ Lithograph ☒ Other (Specify)  
☐ Paper glued  
☐ Stenciled  
Plastic pouch containing pamphlet

## Section IV

1. Contact Print (Complete items directly below for identification of individual to be contacted, if necessary, to process this application).

Name  
Kevin F. Cannon, Ph.D.

Title  
Manager, Agricultural Affairs

Telephone No. (Include Area Code)  
(202) 783-2460

6. Date Application Received (Stamped)

Certification  
I certify that the statements I have made on this form and all attachments thereto are true, accurate, and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

2. Signature

3. Title  
U.S. & International  
Registration Director

4. Typed Name  
Russell P. Schneider, Ph.D.

5. Date Signed  
September 19, 1990

# Paperwork Reduction Act Notice and Instructions

## Paperwork Reduction Act Notice

Public reporting burden for this collection of information is estimated to average of 0.85 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

## Instructions

### General

This form is to be used for all applications for new and amended registrations for pesticide products.

In order to process an application for new registration submitted on this form, the following material must accompany the application:

1. Offer to Pay Statement (EPA Form 8570-27, -28, -29). (If not exempted by 40 CFR 162.9-1(b).)
2. Confidential Statement of Formula (EPA Form 8570-4).
3. Five copies of draft labeling.
4. Three copies of any data submitted.

**Submission of Labeling** - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8 1/2 x 11 inch paper or as a mockup of the proposed label. If prepared as a mockup it should be constructed in such a way as to facilitate storage in an 8 1/2 x 11 inch file. Mockup labels significantly smaller than 8 1/2 x 11 inches should be mounted on 8 1/2 x 11 inch paper for submission.

**Submission of Data** - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

### Specific

Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Section I, III, and IV must be completed by the applicant. For applications submitted in connection with amended registration actions, Section I, II, and IV must be completed by the applicant.

**Block A** - Check the appropriate action for which you are submitting this form.

**Section I** - This Section must be completed for both Registration and Amended Registration actions.

1. **Company/Product Number** - Insert your company number, if one has been assigned. This number may have been assigned to you as a basic registrant, a distributor, or as an establishment. If application is for an amendment, insert the registration number of the product.
2. **Date** - Fill in the appropriate date.
3. **Product Manager** - If known, fill in the name and number of the Product Manager.
4. **Proposed Classification** - Specify the proposed classification for this product.
5. **Name and Address of Applicant** - The name of the firm or person and address shown in your application is the person or firm to whom registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration matters.

An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.

6. **Product Name** - Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.

### Amendment Information

**Section II** - This Section must be completed for all applications submitted in connection with Amended Registration.

1. **Subject of Amendment** - Check the appropriate block, and provide a brief explanation of the purpose(s) for the amendment, such as: "the addition of a site, pest, or crop"; "to change inert ingredient"; "general label revisions of precautionary statements," etc.

### Packaging and Container Information

**Section III** - This Section must be completed for all applications submitted in connection with New Registration.

1. **Type of Packaging** - Check the appropriate block if your product will be packaged in the indicated packaging types. Indicate the size of the individual packets and number per retail container.
2. **Type of Retail Container** - Indicate type of container in which product will be marketed.
3. **Location of Net Contents** - Specify the net contents of all retail containers for your product.
4. **Size(s) of Retail Container** - Specify the net contents of all retail containers for your product.
5. **Location of Use Directions** - Indicate the location of the use directions for your product.
6. **Manner in which label is affixed to product** - Indicate the method product labeling is attached to retail container.

### Contact Point

**Section IV** - This Section must be completed for all Registration and Amended Registration applications.

- 1-5. Self-explanatory.
6. EPA Use Only.

|   |  |   |   |
|---|--|---|---|
| U.S. ENVIRONMENTAL PROTECTION AGENCY<br>OFFICE OF PESTICIDE PROGRAMS (WH-357)<br>WASHINGTON, D.C. 20460 |  | 1. COMPANY/REGISTRATION NO.<br><br><div style="text-align: center;">524-XXX</div>   | 2. EPA USE ONLY<br><br><div style="text-align: center;">- -</div> |
| <b>LABEL TECHNICAL DATA</b><br>(See INSTRUCTIONS on back of last part)                                  |  | 3. PRODUCT NAME<br><br><div style="text-align: center;">F MON-35085 Herbicide</div> |   |

| 4. APPLICATION SITES<br>(Check all that apply)                      | 5. PEST TYPE<br>(Check all that apply)                  | 7. USER TYPE<br>(Check all that apply)                           |
|---|---|--|
| <input checked="" type="checkbox"/> 01 CROPS (Fruit)                | <input type="checkbox"/> 01 ALGAE                       | <input checked="" type="checkbox"/> 01 UNSPECIFIED GENERAL USE   |
| <input checked="" type="checkbox"/> 02 CROPS (Vegetable)            | <input type="checkbox"/> 02 AMPHIBIAN/REPTILE           | <input type="checkbox"/> 02 UNSPECIFIED RESTRICTED USE           |
| <input checked="" type="checkbox"/> 03 CROPS (Field)                | <input type="checkbox"/> 03 BACTERIA                    | <input type="checkbox"/> 03 HOMEOWNER USE                        |
| <input type="checkbox"/> 04 CROPS (Soil)                            | <input type="checkbox"/> 04 BIRDS                       | <input type="checkbox"/> 04 JANITORIAL USE                       |
| <input checked="" type="checkbox"/> 05 CROPS (Nut)                  | <input type="checkbox"/> 05 FISH                        | <input type="checkbox"/> 05 PEST CONTROL OPERATOR USE            |
| <input type="checkbox"/> 06 CROPS (Other)                           | <input type="checkbox"/> 06 FOULING ORGANISMS           | <input checked="" type="checkbox"/> 06 COMMERCIAL APPLICATOR USE |
| <input type="checkbox"/> 07 SOIL TREATMENT (No crop specified)      | <input type="checkbox"/> 07 FUNGI                       | <input checked="" type="checkbox"/> 07 FARMER USE                |
| <input checked="" type="checkbox"/> 08 FOREST                       | <input type="checkbox"/> 08 INSECTS AND MITES           | <input type="checkbox"/> 08 MEDICAL USE                          |
| <input checked="" type="checkbox"/> 09 ORNAMENTALS                  | <input type="checkbox"/> 09 MAMMALS                     | <input type="checkbox"/> 09 VETERINARY USE                       |
| <input type="checkbox"/> 10 TURF                                    | <input type="checkbox"/> 10 NEMATODES                   | <input type="checkbox"/> 10 GOVERNMENT AGENCY USE                |
| <input type="checkbox"/> 11 STORED PRODUCTS TREATMENT               | <input checked="" type="checkbox"/> 11 PLANTS           | <input type="checkbox"/> 11 MANUFACTURING USE                    |
| <input type="checkbox"/> 12 ANIMALS (Livestock)                     | <input type="checkbox"/> 12 RODENTS                     | 8. FORMULATION<br>(Check one only)                               |
| <input type="checkbox"/> 13 ANIMALS (Dairy)                         | <input type="checkbox"/> 13 SLIME                       |  |
| <input type="checkbox"/> 14 ANIMALS (Pet)                           | <input type="checkbox"/> 14 SLUGS AND SNAILS            |  |
| <input type="checkbox"/> 15 ANIMALS (Laboratory)                    | <input type="checkbox"/> 15 VIRUS                       |  |
| <input type="checkbox"/> 16 ANIMALS (Other)                         | <input type="checkbox"/> 16 OTHER (Specify)             |  |
| <input checked="" type="checkbox"/> 17 OUTDOOR (Acrop Agricultural) | 6. MODE OF ACTION<br>(Check all that apply)             | <input type="checkbox"/> 01 TECHNICAL CHEMICAL                   |
| <input type="checkbox"/> 18 OUTDOOR (Resident/Commercial)           |   | <input type="checkbox"/> 02 FORMULATION INTERMEDIATE             |
| <input checked="" type="checkbox"/> 19 OUTDOOR (Non agricultural)   |   | <input type="checkbox"/> 03 DUST                                 |
| <input type="checkbox"/> 20 BUILDINGS (Agricultural)                |   | <input type="checkbox"/> 04 GRANULAR                             |
| <input type="checkbox"/> 21 BUILDINGS (Commercial)                  |   | <input type="checkbox"/> 05 PELLETTED/TABLETTED                  |
| <input type="checkbox"/> 22 BUILDINGS (Food Processing)             | <input type="checkbox"/> 01 ATTRACTANT                  | <input type="checkbox"/> 06 WETTABLE POWDER                      |
| <input type="checkbox"/> 23 BUILDINGS (Medical)                     | <input type="checkbox"/> 02 BIOLOGICAL CONTROL          | <input type="checkbox"/> 07 WETTABLE POWDER/DUST                 |
| <input type="checkbox"/> 24 BUILDINGS (Residential)                 | <input type="checkbox"/> 03 CHEMOSTERILANT              | <input type="checkbox"/> 08 CRYSTALLINE                          |
| <input type="checkbox"/> 25 EQUIPMENT (Commercial)                  | <input type="checkbox"/> 04 DEPOLIANT                   | <input type="checkbox"/> 09 MICROENCAPSULATED                    |
| <input type="checkbox"/> 26 EQUIPMENT (Food)                        | <input type="checkbox"/> 05 DESICCANT                   | <input type="checkbox"/> 10 IMPREGNATED MATERIALS                |
| <input type="checkbox"/> 27 EQUIPMENT (Agricultural)                | <input type="checkbox"/> 06 FEEDING DEPRESSANT          | <input type="checkbox"/> 11 SELF-GENERATING SMOKE                |
| <input type="checkbox"/> 28 EQUIPMENT (Medical)                     | <input checked="" type="checkbox"/> 07 GROWTH INHIBITOR | <input type="checkbox"/> 12 EMULSIFIABLE CONCENTRATE             |
| <input type="checkbox"/> 29 EQUIPMENT (Transportation)              | <input type="checkbox"/> 08 GROWTH REGULATOR            | <input type="checkbox"/> 13 INVERT EMULSION                      |
| <input type="checkbox"/> 30 LAUNDRY AND DRY CLEANING                | <input type="checkbox"/> 09 POISON (Single dose)        | <input type="checkbox"/> 14 FLOWABLE CONCENTRATE                 |
| <input type="checkbox"/> 31 INDUSTRIAL PRESERVATIVES                | <input type="checkbox"/> 10 POISON (Multiple Dose)      | <input checked="" type="checkbox"/> 15 SOLUBLE CONCENTRATE       |
| <input type="checkbox"/> 32 PESTICIDE (Manufacturing only)          | <input type="checkbox"/> 11 PRESERVATIVE                | <input type="checkbox"/> 16 SOLUTION (Ready to Use)              |
| <input type="checkbox"/> 33 OTHER (Specify)                         | <input type="checkbox"/> 12 REPELLENT                   | <input type="checkbox"/> 17 OILS (No added pesticides)           |
|   | <input type="checkbox"/> 13 OTHER (Specify)             | <input type="checkbox"/> 18 PRESSURIZED (Gas)                    |
|   |   | <input type="checkbox"/> 19 PRESSURIZED (Liquid)                 |
|   |   | <input type="checkbox"/> 20 PRESSURIZED (Dust)                   |
|   |   | <input type="checkbox"/> 21 OTHER (Specify)                      |

REMARKS:

CERTIFICATION WITH RESPECT TO CITATION OF DATA

EPA File Symbol/Reg. No. 524-XXX Date of Application September 19, 1990

Name of Product MON-35085 Herbicide

Applicant's Name and Address Monsanto Company

700 14th Street, N.W., #1100

Washington, D.C. 20005

1. This application is supported by all data submitted or cited in the application. In addition, if cite-all options are indicated, this application is supported by all data in the Agency's files that concern the properties or effects of this product or of any other product that is identical or substantially similar, and that is one of the types of data that would be required to be submitted if this application sought the initial registration of a product of identical or similar composition and intended uses under the data requirements in effect on the date of approval of this application..

2. I certify that, for each study cited in support of this application for registration that is an exclusive use study, I have obtained the written permission of the original data submitter to cite that study.

3. I certify that, for each study cited in support of this application for registration that is not an exclusive use study:

I have obtained the written permission of the original data submitter to cite that study; or

I have notified in writing the companies who have submitted data I have cited to support those applications and have offered to: (a) Pay compensation for those data in accordance with section 3(c)(1)(D) and 3(c)(2)(D) of the Federal Insecticide, Fungicide and Rodenticide Act; and (b) Commence negotiations to determine which data are subject to the compensation requirements of FIFRA and the amount and terms of compensation due, if any. The companies I have notified are: (Check one)

☐ All companies listed on the Pesticide Data Submitters List for all active ingredients contained in my product (Cite-all method or cite-all option under Selective Method). (Also sign the General Offer to Pay Statement below).

☒ Monsanto Company has submitted the studies which I have cited (Selective Method).

Date September 19, 1990

Signature Russ Srinivasan

Title U.S. & International Registration Director

General Offer to Pay: I hereby offer and agree to pay compensation to other persons, with regard to the approval of this application, to the extent required by FIFRA sec. 3(c)(1)(D) and 3(c)(2)(D).

Date September 19, 1990

Signature Russ Srinivasan

Title U.S. & International Registration Director

01100131

SECTION III

Glyphosate 40 CFR 158 Data Reference List



RIN 910-02  
EPA Registration File Jacket # 524-445

Page      is not included in this copy.

Pages 467 through 497 are not included in this copy.

---

The material not included contains the following type of information:

- Identity of product inert ingredients.
- Identity of product inert impurities.
- Description of the product manufacturing process.
- Description of quality control procedures.
- Identity of the source of product ingredients.
- Sales or other commercial/financial information.
- A draft product label.
- ☒ The product confidential statement of formula.
- Information about a pending registration action.
- FIFRA registration data.
- The document is a duplicate of page(s)     .
- The document is not responsive to the request.

---

The information not included is generally considered confidential by product registrants. If you have any questions, please contact the individual who prepared the response to your request.

---